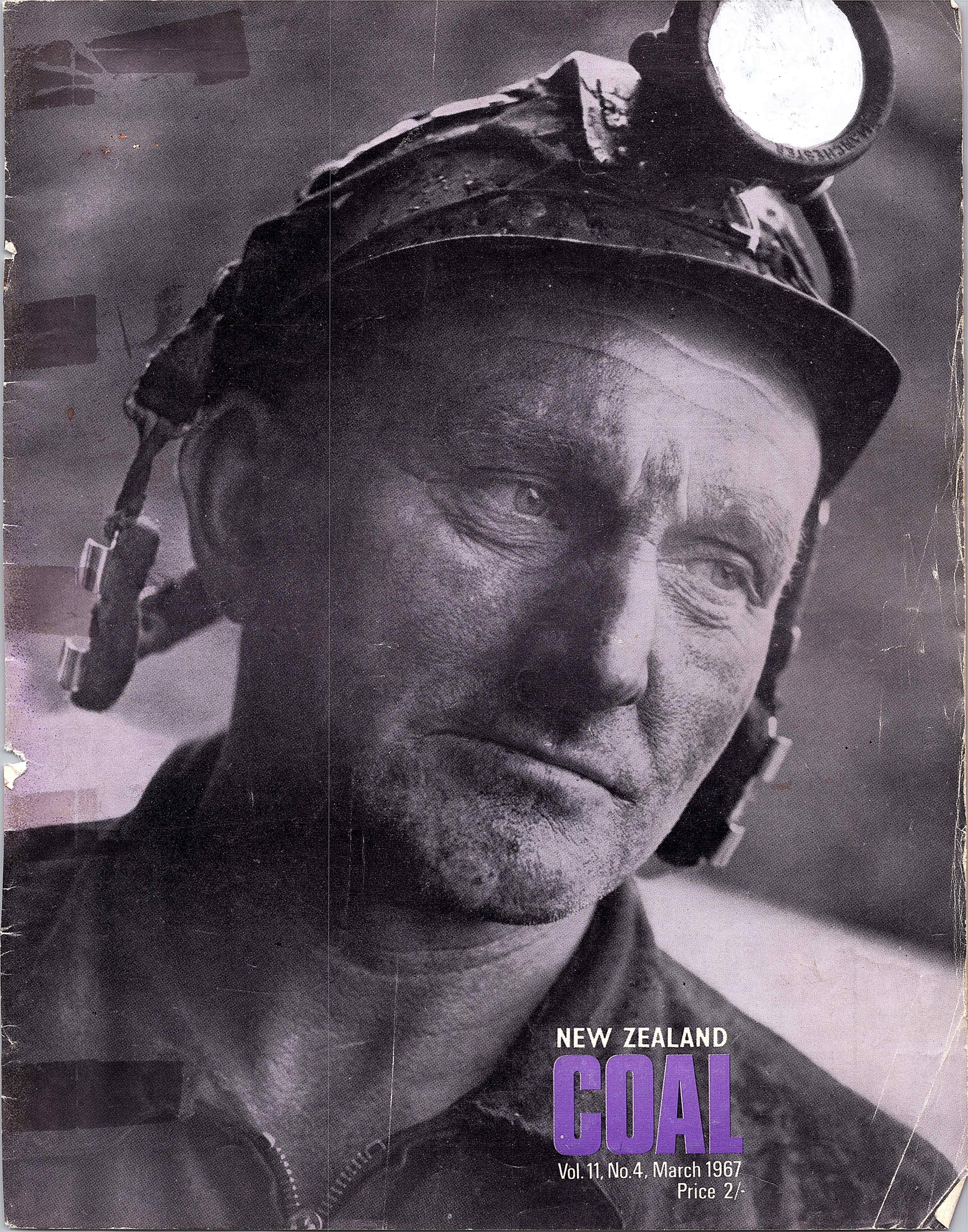

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COAL

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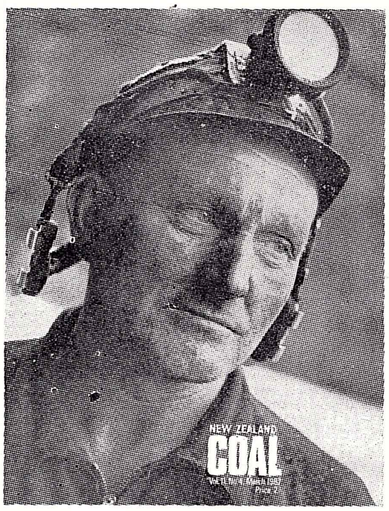
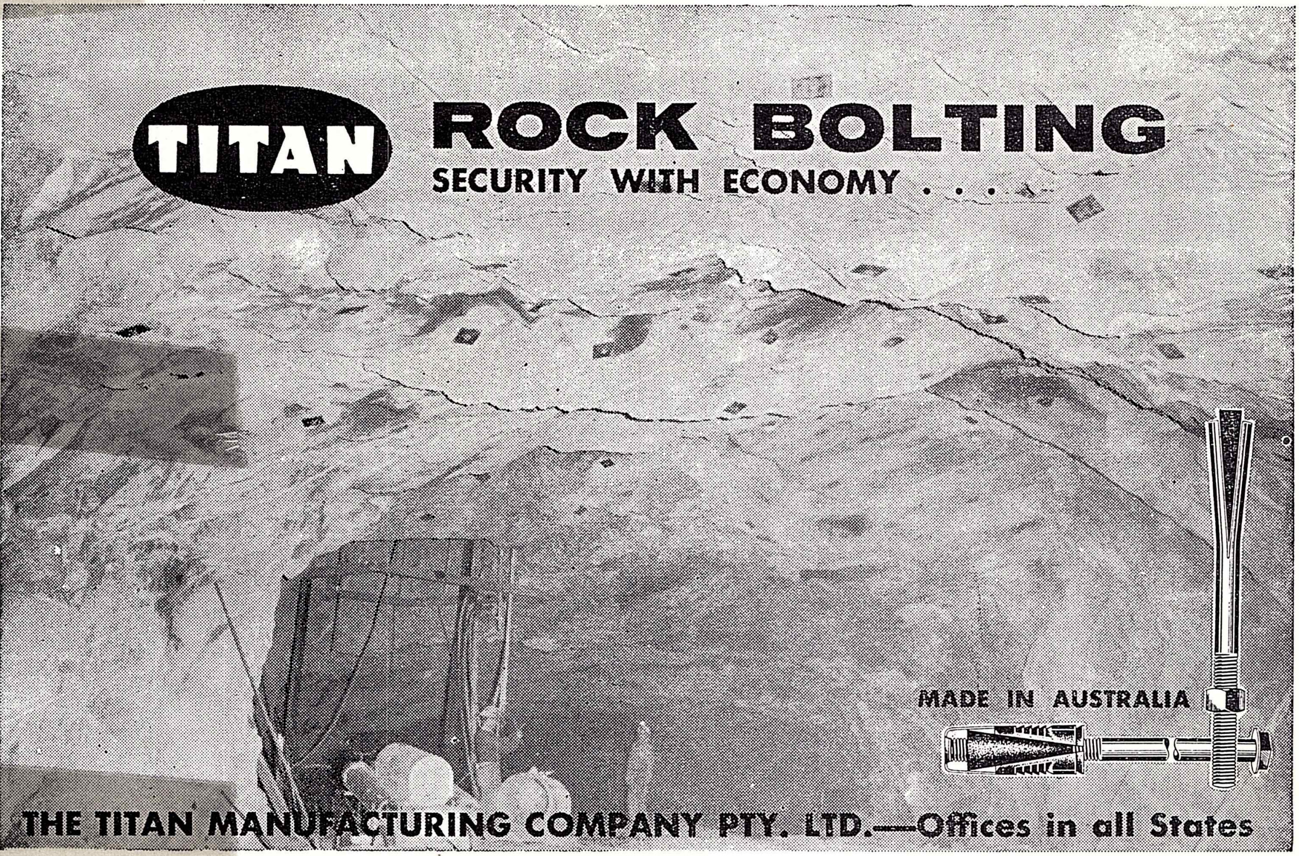


OUR COVER PICTURE

Weary and grimy after more than 16 hours underground, the face of Mr A. Auld, New Zealand superintendent of Mines Rescue, typifies the stress and strain under which he and his fellow members of the rescue teams worked through the night in hazardous conditions seeking the men who lost their lives in the Strongman explosion on January 19.



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The Minister of Mines, Mr Shand (left), who arrived at Greymouth the afternoon of the explosion and remained until after the mass funeral, discusses the situation with Mr J. White (secretary of the United Mine Workers' Union) and Mr R. Beadle (secretary of the Grey Miners' Central Committee).

Strongman Explosion Brought Sorrow To Many But Deep Pride To All

January 19, 1967, is a date that will remain vivid in the memories of this generation of the West Coast mining community. The day brought sorrow to many but a deep pride to all.

The two-mile route from the churches to the cemetery was thronged with mourners.

At four minutes past 10 in the morning a blast in the Green's Dip section of the Strongman mine took the lives of 19 men in a stern and poignant reminder that some workers must still risk their lives to ensure the comfort and wellbeing of others. The blast destroyed mercilessly, but it also released a flood of kindness, charity, humanity and courage.

The sympathy of all New Zealand was given spontaneously to the relatives of the men who died. The traditional "Coast "spirit was again a shining example to the rest of the country.

The vicar of Greymouth, Canon K. G. Aubrey, put it this way: "Through all the blackness of the sudden and tragic grief, the love in the Coasters' hearts has found vivid expression in countless acts of kindness and courage.

Men who went to the rescue braved incalculable risks, well knowing the ever-present danger of a further catastrophe. Equally worthy of praise were the hundreds impatient that only a few could enter the mine in rescue parties.

"These men," said the Vicar of Cobden and Runanga, the Rev. G. Spargo, "are a living testimony to the calibre of those who man our mines in this country."

The comradeship that is a century-old tradition of coal mining was shown in the reply of a tired and mud-stained rescue worker waiting at the pithead to see if he could help. To an inquiry from a well-wisher from outside the district as to whether he should not get some rest, he said: "Those are my mates down there and I want to be on hand if there is the slightest chance of getting them out."

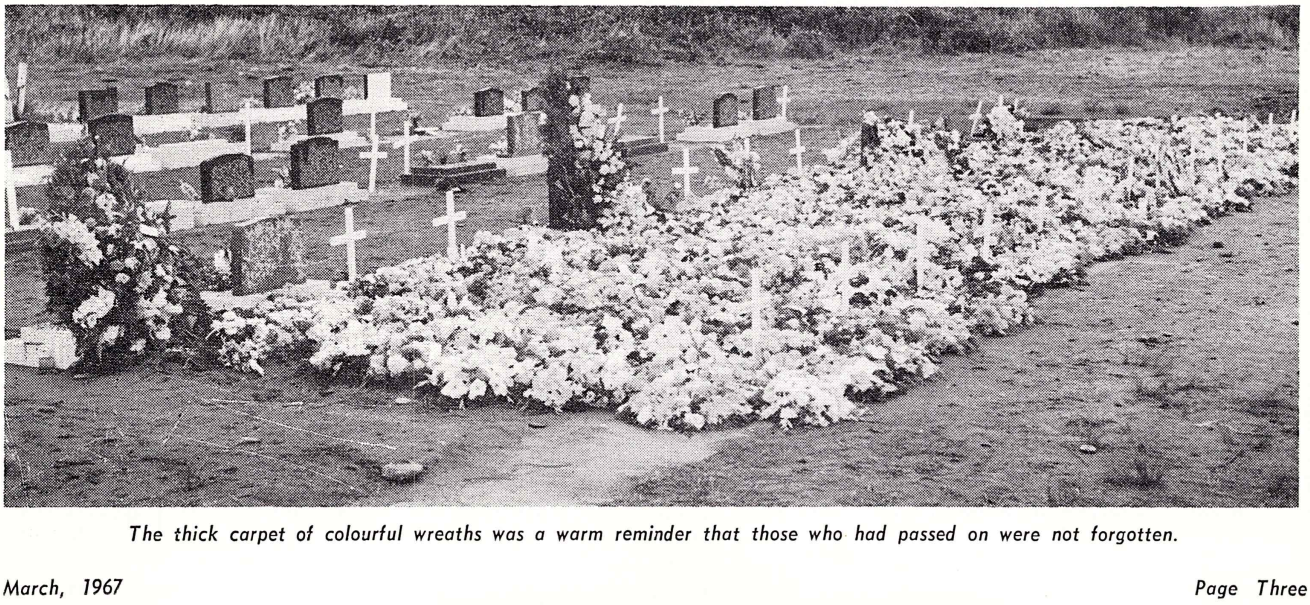
The Rev. Dr R. W. Falconer, a Roman Catholic curate at Greymouth, who went part of the way into the mine with the first rescue team and administered the last rites to the first three bodies found, and Mr P. W. Blanchfield, M.P. for Westland, who spent many long hours at the mine waiting for news of the men.

The Strongman saga began when a violent explosion ripped through the 3-acre section of Green's Dip and, as rescuers found, hurled men and debris in all directions. The shock wave was felt in sections of the mine more than half a mile away. A party stumbled over debris in trying to enter the stricken area, and was driven back by smoke and gas.

Seven minutes after the explosion all men were ordered to evacuate the mine and emergency calls were made for rescue units, ambulances and medical services. Those who survived were all out 21 minutes after the explosion and two minutes later mine inspectors Messrs John Cowan and Ron Scott entered the mine.

Only 31 minutes after the explosion the rescue squad, equipped with breathing apparatus, cleared debris from the entrance to the shattered part of the mine and the long and heartbreaking search for bodies began.

Directed by Mr A. Auld, New Zealand Superintendent of Mines Rescue, and with Mr R. J. Neilson, officer in charge of the Dobson rescue station, supervising on the surface the rescue



The thick carpet of colourful wreaths was a warm reminder that those who had passed on were not forgotten.

squads groped through dense gas and fumes for almost two hours before the first three bodies were found and brought to the surface at 1 p.m.

Though a sudden outbreak of fire was a constant threat, the rescuers put aside all thoughts of personal safety to continue the search for victims, but it was not until 5 p.m. that five more bodies were recovered.

THROUGH THE NIGHT

The search went on through the night and at 10 p.m. five men were still missing. Another body was brought to the surface at 2 a.m., but another four of "their mates" were down below and the rescue teams continued with unflinching determination to grope through the wreckage. However, at 2.20 a.m., almost 16 hours after many of the miners had started their grim search, the rescue squads had to leave the mine to let the atmosphere clear.

Because of the strong possibility of fire, the rescuers returned five hours later to look for their other four comrades. But fire broke out and the search had to be abandoned.

The Green's Dip section was sealed off at once from the rest of the mine to stop the fire from spreading. Volunteers completed this task.

Immediately the news of the explosion reached Wellington the Minister of Mines, Mr Shand, the Under-Secretary for Mines, Mr P. M. Outhwaite, the assistant Under-Secretary (Technical) for Mines, Mr G. Keown, and the Chief Inspector of Coal Mines, Mr R. Marshall, flew to the mine and stayed until after the funeral.

Mr Outhwaite, a former manager of Strongman who had earlier worked on the coal face there, expressed the sympathy of the Department to the relatives of the deceased and praised the work of the rescue squads.

While preparations were being made for a mass funeral on Sunday, January 22, messages of sympathy flooded into the Grey Valley district from all parts of New Zealand. Coasters all through the country made their way "home" to pay their last respects.

FAMILY AFFAIR

The feeling on the Coast was fittingly described by Mr Shand, who said: "Having lived on the West Coast years ago, I had some appreciation of the way in which Coasters stand together in times of trouble.

"But one had the feeling that this was a family affair. Everyone we met was feeling and thinking and talking as if it was his father or husband who was involved.

"I hope and believe that this knowledge that their grief is so universally shared will be a great help to those who have lost their nearest and dearest.

"Everything we saw and heard confirmed the fact that the moment the accident happened rescue procedure swung into operation without a hitch. There was the utmost co-operation from everybody.

"As Minister of Mines I would like to express my thanks to everyone who helped with the operations—the rescue teams, mine officials, union officers and the miners themselves."

Accompanied by Mr Outhwaite and Mr J. Glendenning, district manager of the State Coal Mines, Mr Shand visited the homes of all the dead miners to pay his respects to their relatives.

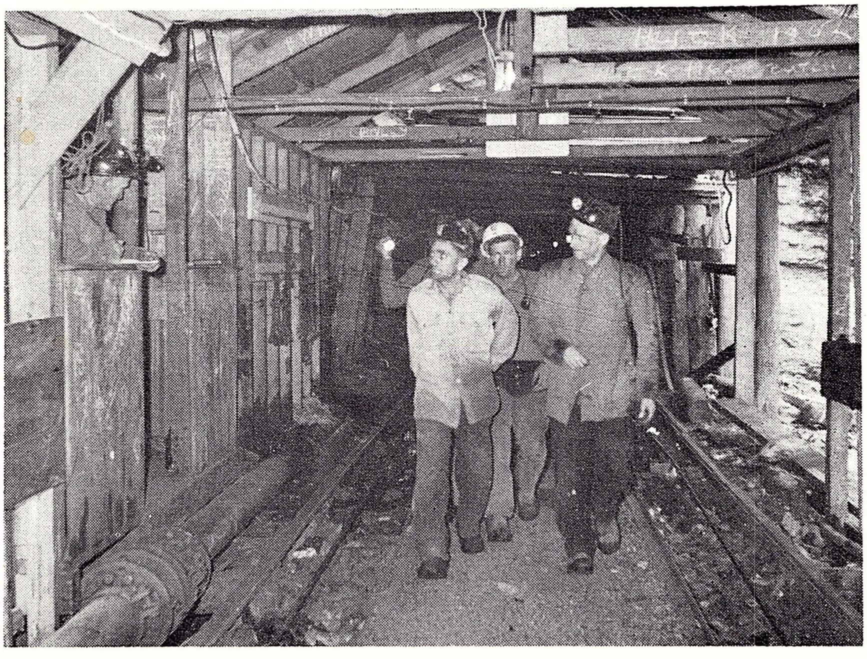
The mass burial services were an unforgettable scene and a moving tribute to men who had died on the important job of winning coal for the country's industry.

Thousands of people of all ages stood in the rain along the route from the churches to the Karoro

COMMISSION NAMED

The personnel of the commission to inquire into the explosion at the Strongman mine has been named. Mr J. K. Patterson S.M. will be chairman and the other members are Messrs W. Elliott, an underviewer at Wairaki mine, Ohai, S. R. Eyeington, manager of Pukemiro mine, T. McGhie, a retired State Coal Mines district manager, who is chairman of the New Zealand Coal Council, and A. V. Prendiville, president of the United Mine Workers Union.

The commission, which will conduct its hearings in public, is directed to inquire into and report on the nature and character of the working and the efficiency of the management of the mine; the cause of the disaster; the efficiency of the inspection of the mine: suggestions for the prevention of any similar disasters.



Grim faced as they wonder at the fate of their workmates in the Green's Dip section, these men check off as they walk out of the Strongman mine a few minutes after the explosion.

cemetery where the men who died together were laid together for their final rest.

Services were held in the St John's Presbyterian and St Patrick's Catholic churches and seven trucks carried the thousands of floral tributes to the graveside. Members of the Greymouth R.S.A. and the Greymouth Amateur Athletic Club formed guards of honour.

The official party included Mr Shand, Mr P. Blanchfield, M.P. for Westland, Mr W. E. Rowling, M.P. for Buller, Mr Outhwaite, Mr Keown, Mr Marshall, Mr Glendenning, Mr D. J. Brown, manager of the Strongman mine, Mr R. Wylde, Mayor of Runanga, and Dr B. M. Dallas, Mayor of Greymouth.

Speaking at the St John's service, Mr Shand said : "It is my part today to pass to you all the messages of love and sympathy from those who could not be here today.

"First His Excellency the Governor-General, Brigadier Sir Bernard Fergusson, asks me to express his sympathy and that of Her Excellency, Lady Fergusson.

"The Prime Minister and my Cabinet colleagues have asked that I convey their sympathy and that of their wives.

"I speak also for Members of Parliament of all political parties, a number of whom have been unable to attend today. I must pass a message too for the Under Secretary and staff of the Mines Department.

"Many of them have been miners and the others have been associated with the mining industry through their working lives. They deeply share this community's loss.

"Last may I speak for my wife and myself.

"There have been other disasters in New Zealand with even greater loss of life, but never one which struck so hard against a small community as this one has done.

"Those who have not been here would have been glad to see two things which all the mining community were able to see : first, the immediate and wholehearted response by miners to the call for help.

"The mine manager has asked me to say this : If it had not been for the wonderful effort of volunteers we would not have been able to recover so many as we have been able to do."

SYMBOL OF HOPE

In a mine there was a symbol of the strong sign of Christian hope, said the Roman Catholic Bishop of Christchurch, the Most Reverend B. P. Ashby, who celebrated the Requiem Mass at St Patrick's. "Many times in the last few days we have asked 'why, why did this happen'?", Bishop Ashby said.

"While mining is the hazardous occupation of men who realise the dangers involved, every human precaution would seem to have been taken by mine officials and the miners themselves.

"So we ask why did this have to happen — death to men in the full flower of their manhood, wives bereaved, and in many cases young children left fatherless.

"Does not God, in His own inscrutable providence, wish to show us again that we are His creatures, that the world He redeemed is com-

Impatient that they can only stand and wait for news groups of men are ready to render any assistance possible while the search continues underground for their workmates.

(All pictures in this story by Inksters Ltd., Greymouth)

STRONGMAN CATASTROPHE FORGES A BOND

All mining communities live in the shadow of disaster and disaster struck Green's Dip in the Strongman mine on Thursday, January 19 in its most feared form — explosion.

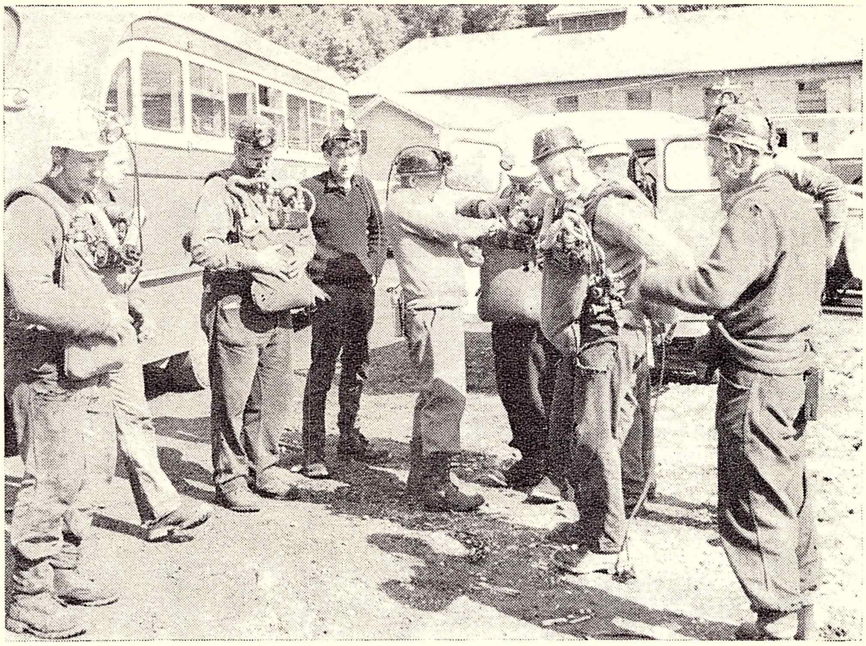
Nineteen fine men were killed and hundreds lost relatives and friends.

Such was the stark picture. But from this catastrophe a remarkable spirit arose from the afflicted communities and the country as a whole.

Within minutes miners were risking their lives in heroic efforts to bring out survivors. Within hours compassion and help poured into the homes of the victims. Then the whole community closed its ranks, braved its sorrow, and undertook the heartbreaking preparations for the mass funeral.

A bond was forged that Sunday — a wet day in months of sunshine — that made one proud to be a Coaster, proud to have known these men, proud to be able to help their families.

B. M. DALLAS,
Mayor of Greymouth.



One of the rescue teams preparing for a descent into the mine.

pletely in His power; that we make our plans, have our ambitions, work out our lives, but that all finally is subject to His omnipotent will.

"We know that God is a God of love and mercy and we can conclude that His love was uppermost in His decision to take these 19 men from their earthly life.

"We know, too, and have visible evidence of it in these days that the tragedy has unleashed a wave of charity and love in the whole New Zealand community — a precious wave that does much to offset the strife, the tensions and bitterness so often reported on in our world community.

"More than that it is a wave of love that shows our basic solidarity one with another that there is goodness and kindness, that we do care about one another.

"The tomb has always been the Christian symbol of hope. Christ rose from the tomb to make heavenly happiness and eternal life possible for all.

"Can we not see in the very symbolism of a mine the strong sign of our Christian hope — that buried in the depths of the earth, the deceased will rise to the radiance of eternal light."

Concluding, Bishop Ashby said:

"May I say how much admiration and praise must be extended to the rescue workers, Government and officials, civic leaders and the whole Greymouth district for the efforts that have been made to lighten the cross laid by a loving God on the shoulders of those who are left to mourn."

The churches were packed and hundreds stood outside under leaden skies to hear the service relayed on public address systems.

After the services the coffins were placed on trucks, a fire engine and a hearse for the 2-mile journey to the cemetery. The procession was so long that the head of it arrived at the cemetery before the last cars had left the churches.

To add to the pall of grief, the skies opened up just before the burial services, but the downpour could not deter 5000 people from standing at the Karoro cemetery in silent tribute.

The 14 caskets were carried to the mass grave by relatives, friends and former workmates. Last to be buried was the youngest, 18-year-old Noel James Prescott, laid to rest in the family plot.

As the cortege entered the cemetery Pipe Sergeant J. F. Knapp sounded a lament on the bagpipes.

Captain J. Brown, corps officer of the Salvation Army in Greymouth, read the burial service and the Greymouth Baptist minister, Rev. G. Smith, shared later readings.

The prayers of committal were said jointly by Anglican and Roman Catholic priests and Mr G. Hunt, assistant Presbyterian minister for Cobden-Runanga parish. The Roman Catholic Bishop of Christchurch recited a prayer and sprinkled the grave with holy water. He gave the final blessing jointly with the Anglican Vicar of Greymouth.

The president of the Greymouth R.S.A., Mr C. G. Gillespie, read the soldiers' burial service and Mr F. Barltrop sounded "The Last Post" and "Reveille".

Slowly the mourners left, but the thick carpet of colourful wreaths contrasting vividly with the grey of the sky was a warm reminder that those who had passed on were not forgotten.

MINE REOPENED

The mine was reopened three weeks later on February 11 in an endeavour to recover the remaining four bodies, but work was halted until the water had been pumped out. Under the most unfavourable conditions the bodies of Messrs Jan Trukawka and Ernest Smith were recovered on Monday, February 13 and all work in the mine stopped as men wearing the Proto equipment carried out a round-the-clock search for the remaining two men.

Reconnaissance was extensive but not successful and the rescue teams reported that Green's Section had been thoroughly searched and that the missing workmen could only be buried under an extensive fall in the upper portion.

Attempts were made to clear a part of this fall, but the conditions deteriorated so rapidly that it was too dangerous to continue with the work.

Because of an extensive accumulation of firedamp in the area and with conditions becoming more dangerous it was decided to withdraw the rescue teams.

A meeting on the surface of representatives of the Miners' Union, Underground Officials' Union, superintendent of the rescue service, inspectors and senior officers of the Mines Department agreed unanimously that in the interests of safety rescue work should be suspended.

It was further agreed that a rescue squad of 10 members representing all the interested parties should examine the section finally in an effort to discover the source and the cause of the explosion.

When the inspection was completed it was agreed by all parties that the Green's Dip area should be permanently sealed and this was done immediately. The bodies of Messrs Kenneth Errol Moore and Dudley John Robinson will therefore rest for ever in the area that claimed their lives and the lives of 17 of their workmates.

Roll of Honour

Those who died in the Strongman explosion on January 19, 1967, were :

Edward Augustus Bourke, 63.
Lawrence Joseph Coghlan, 38.
Russell Neil Cust, 20.
James William Thomas Foster-Lynam, 28.
Jack Johns, 39.
George William Kinsey, 57.
Hector McKenzie, jun., 26.
Robert Archibald Maughan, 22.
Kenneth Errol Moore, 45.
Kenneth Henry James ("Peter") Mountford, 42.
Eric Alan Newcombe, 42.
Hugh Francis O'Donnell, 29.
Noel James Prescott, 18.
Dudley John Robinson, 23.
Ernest Henry Smith, 60.
Jan Antonio Trukawka, 30.
Harry Van Looy, 36.
Alfred Joseph Watson, 33.
William John ("Bing") Williams, 32.

The funeral services for Messrs Trukawka, Smith, Moore and Robinson were held in heavy rain, but in churches filled to overflowing. The service at the Anglican Holy Trinity Church for two of the dead was interdenominational, while at St Patrick's Church a Catholic service was held for the two other miners who lost their lives.

Ninety cars and four buses followed the hearses carrying the bodies of Messrs Trukawka and Smith when the two funerals joined at the Holy Trinity Church.

The rain stopped as the cortege arrived at the Karoro Cemetery and 700 mourners paid their last tributes as the bodies were committed to the mass grave in which 14 of their workmates who died in the same explosion were buried three weeks before.

The sympathies of all readers of "Coal" and of everyone associated with the coal industry are extended to the relatives of those who lost their lives in the Strongman explosion.

With a strong sense of pride may we extend the thanks of the whole country to the men who risked their lives in this West Coast tragedy in an heroic attempt to rescue their mates.

DISTRICT HEATING/COOLING SCHEME IN PITTSBURGH

This year will mark the opening of Pittsburgh's first district heating and cooling system.

Allegheny Centre, a £21.5 million redevelopment project in Pittsburgh, Pennsylvania, is a 79 acre complex of apartment buildings and town houses with an enclosed shopping area and an office building.

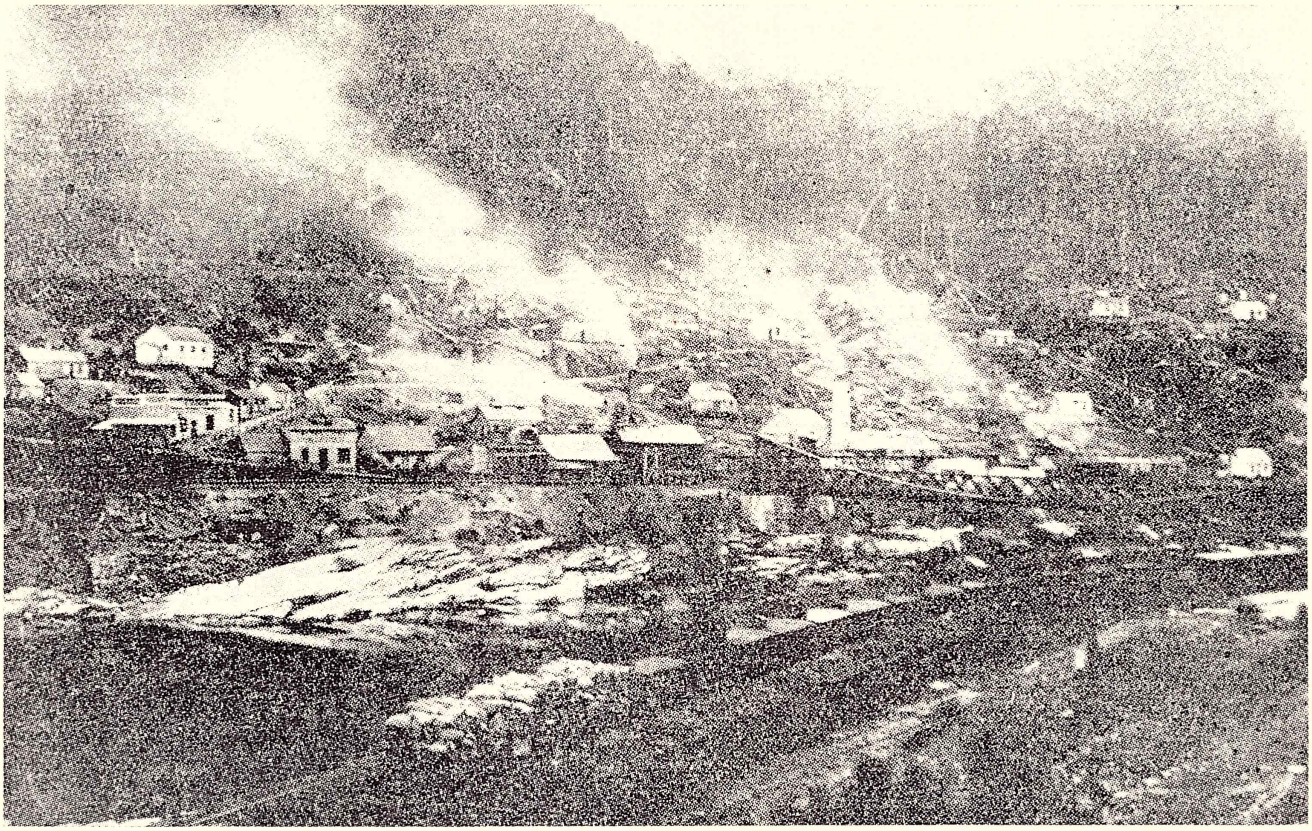
The Centre's £1.4 million central heating and cooling plant is claimed to be the first in the world to provide heating and air conditioning to such a variety of buildings throughout the year.

The plant building, located next to the Centre will eventually serve eight apartment buildings ranging in height from six to eight storeys and containing approximately 1350 flats., together with 220 town houses, 750,000 sq. ft. of commercial space and an eight storey office building. In addition to heating and cooling Allegheny Centre it will also provide heating for domestic hot water to all customers.

During the first few years, while Allegheny Centre is under construction, heating and cooling loads will be much lower than when the Centre is completed. The design consultants for the central heating and cooling system, have estimated that the final cooling load for Allegheny Centre will be approximately 6000 tons of refrigeration. About half will be needed for the commercial area. With even further area development contemplated, space has been allowed for doubling the size of the central plant, and steam and chilled water mains have been sized accordingly. Steam load is estimated at approximately 125,000 lb/h.

For generating steam at the expected maximum demand of 125,000 lb/h (which includes domestic water heating and line losses), two boilers will be installed, each to generate 70,000 lb/h at 235 p.s.i.

The boilers are of the two-drum type, gas-fired, with water-cooled sidewalls, floor and roof. Each boiler has a forced draught fan driven by a 50 h.p. steam turbine exhausting to the deaerator. One smaller motor-driven fan is provided for start-up service.



The Brunner bridge and coal mines in 1896.

All pictures in this story supplied by the Alexander Turnbull Library.

N.Z. MINING DISASTERS COSTLY IN LIVES

Although New Zealand is renowned for the high standard of safety measures in coal mines, from time to time the industry has been hit by tragedy. The recent Strongman explosion has revived memories of the three largest disasters in this country, Kaitangata, Brunner and Ralph's, which cost the lives of 142 men.

At Kaitangata, South Otago, on February 21, 1879, 34 men were killed by an underground explosion caused, according to the report of the inquiry, by the use of naked candles when firedamp was present.

At 9 a.m. a thunderous report shook the hundred or so miners' houses in the little township at the foot of the hills. Debris shot into the air over the Kaitangata Railway and Coal Company's colliery, which was in a blind gully about ½ mile from a bend of the Molyneux River. A boy and horse just entering the mine were blown 50 yards and killed. A house 30 yards from the mine mouth was moved from its foundations and partly wrecked.

Searchers penetrated the workings and by 9 p.m. 28 bodies had been recovered and four more had been seen. The search continued the next day.

No bodies were found where the men had been working and most of them were at a spot away from the explosion. Most of the bodies were not blackened or burnt, which suggested that firedamp had exploded and that the coal cutters had had time to flee, but were caught in a belt of black damp (carbonic acid gas) and suffocated.

The evidence at the inquiry suggested that one of the men who had gone into the old workings of the mine with a naked light, had triggered the explosion, for the old workings were reservoirs of inflammable gas. The miners told of earlier small explosions in the tunnels and of the presence of gas . . . ventilation was inadequate.

THE WORST

Kaitangata was New Zealand's first big disaster, but the worst one occurred on March 26, 1896, when 65 men perished in an explosion at the Brunner coal mine.

In the West Coast settlement of Brunner on that morning news spread that steam and smoke had been seen coming from the mine. Residents had heard an explosion at 9.30 a.m.

Nearly 70 men were in the mine

at the time. The first two bodies were found only about 100 yards from the mine entrance. What hope could be held for those deeper in the pit?

The rescuers saw that the explosion had been terrific. Evidence was the twisted tramlines, shapeless remains of big steel trucks and hundreds of tons of rock blown from the walls and the roof.

The Prime Minister, Mr R. J. Seddon, was on the West Coast when the news of the disaster was brought to him. He went straight to the scene.

That night those below knew there was no longer any hope for survivors as more and more bodies were sent to the surface. Many rescuers were exhausted or overcome by fumes and were treated by doctors at the mine entrance.

Nearly 17 hours after the explosion the air in the mine was so foul rescuers could work for only 10 minutes before returning to the fresh air. By this time they had cut their way about a mile into the mine and were only about 10 chains from where most of the miners were working at the time of the explosion.

As the hours ticked by even the strongest wills began to admit despair. The men had groped on right through the blast area and the finding of bodies now became more rapid.

Still at his post, but badly burnt, rescuers found the body of the man who had been sent to call help. When the explosion had occurred, the telephone bell from the pit gave three rings: the danger signal. This suggests there was more than one explosion. The man at the dynamo had flashed this signal and had then been killed by the second explosion.

On the morning of March 31 the last body was brought from the pit, and the death roll was 65, about 50 of whom were married.

The Brunner disaster was at first thought to have been caused by a heavy flood that filled neighbouring pits and forced gas into the mine.

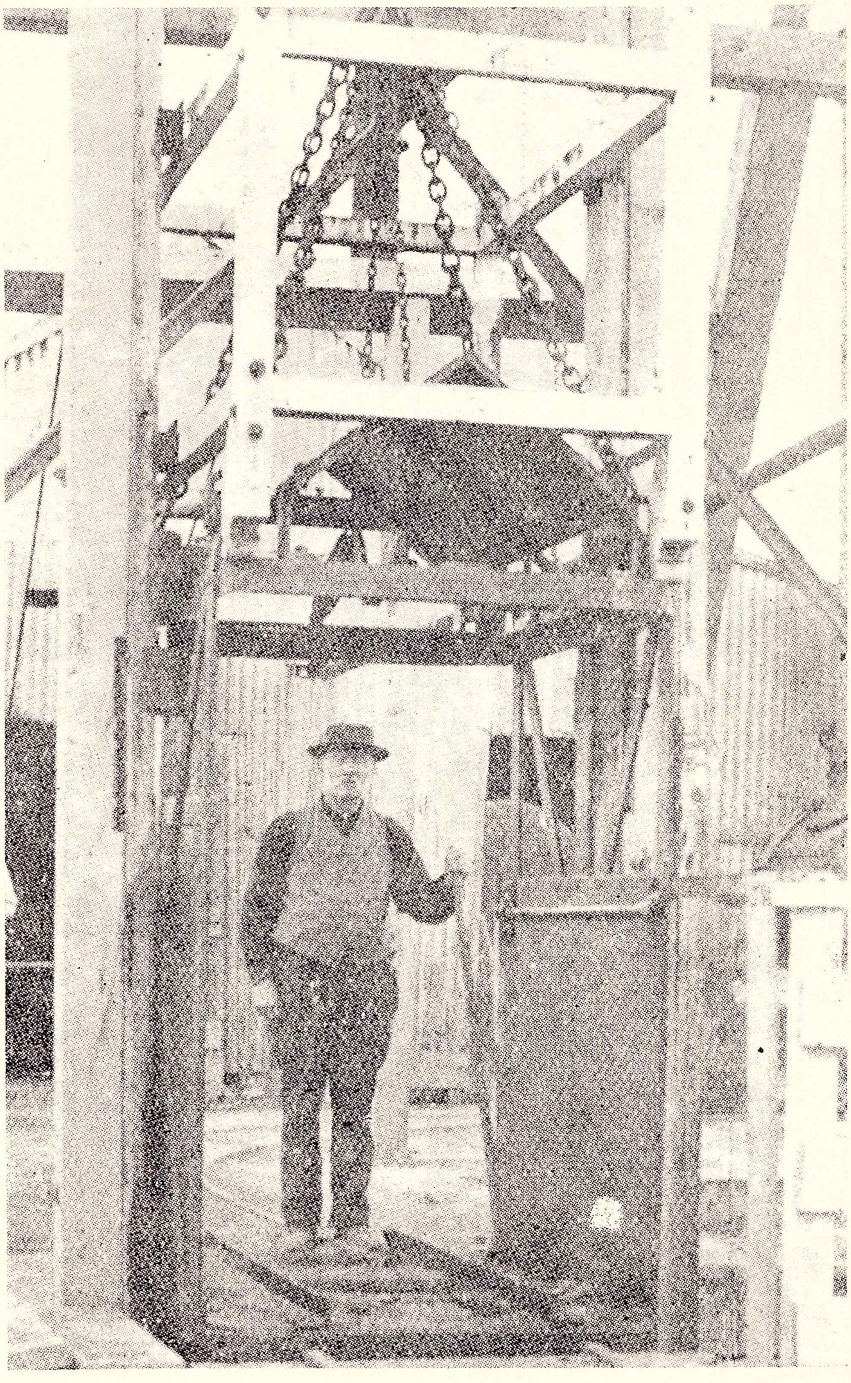
The Royal Commission into the explosion, however, found the primary cause was a "blown-out shot" fired contrary to the rules of the mine in a part where no work should have been in progress. A blown-out shot is a blast which fails to split the coal because the hole has been drilled wrongly or because of some other defect in the preparation.

An explosion at Ralph's Mine, Huntly, occurred on a Saturday, when a "short shift" of 60 men were at work in the mine. On a week day 250 men might have been in the pit. The death roll was 43, including two who died later from injuries.

DISTRICT STARTLED

At 7.20 a.m. on September 12, 1914, the roar of an underground explosion startled the district. Immediately afterwards a great cloud of dust and smoke, shot through with flames for a few moments, hovered over the main shaft of Ralph's Mine.

Most of the cages had been wrecked by the blast, but one cage in the main shaft was in working order, and 15 minutes after the explosion miners in twos and threes



Shaft at West Taupiri through which most of the bodies were brought out after the Ralph's Mine disaster.

were brought up. Most had been hit by rushing air, smoke and flame close to the main shaft. They had been knocked about and badly burned. Trucks were turned over, rails torn up and timber hurled about.

The explosion put out all the miners' lights and they did not re-light them because of the danger of exploding the gas.

The first hurriedly organised rescue party was soon forced back by dense smoke and fumes. A second party was also forced back and it became clear that the mine was on fire. Rescue work was impossible until the flames could be put out and the ventilation system repaired.

Hopes for those trapped below were raised when it was reported that the western shaft, 1½ miles away, could be entered. Rescuers found that survivors were already coming up this shaft.

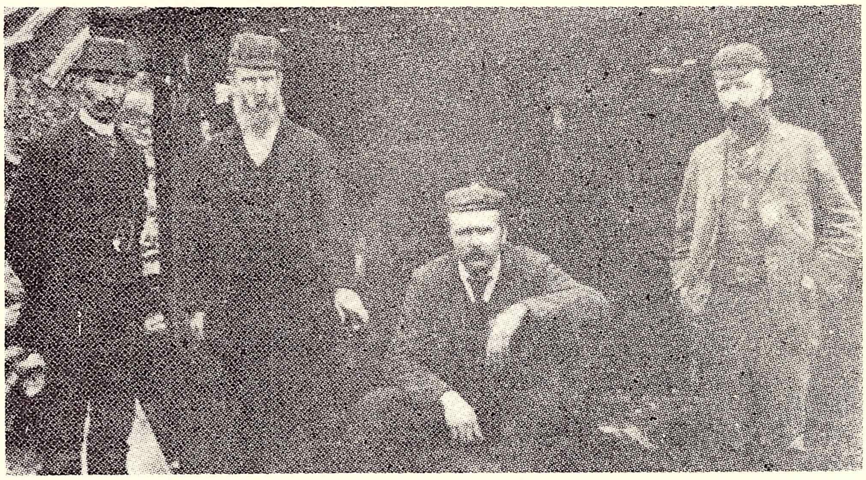
The seat of the explosion appeared to be half way between the two outlets. Eleven men reached the western shaft after being hurled along underground by the rush of air.

Rescuers made some progress along the western shaft, but after a while they encountered after-damp (gas left after an explosion) and as the air become poisonous, the attempt had to be abandoned.

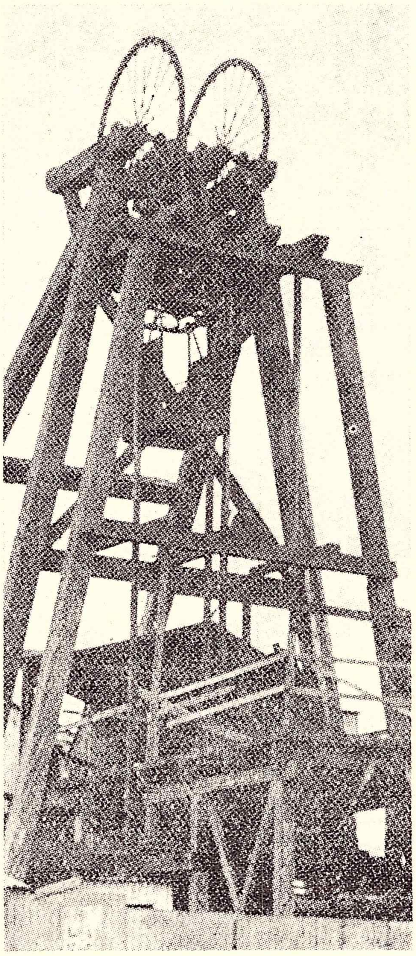
After the fires were out and ventilation was restored searchers again entered the main shaft, but were delayed by the lack of safety lamps, as these had not been considered necessary. Miners had always used naked lights, as the workings were thought to be free of dangerous gases.

At the subsequent Royal Commission to investigate the tragedy, Mr Frank Reid, inspecting engineer of mines, told of suspicions he had of gas in Huntly mines. He wrote to the Under-Secretary of Mines saying: "I fear a holocaust at Ralph's Mine". Five other warnings to the department followed, drawing attention to several men being burned by the ignition of gas.

Evidence was given before the Commission of the presence of the body of a trucker in the old workings, where he seemed to have no right to be. The explosion appeared to have originated at this spot and experts attributed it to the man going with a naked light into the old workings, where coal dust and gas had accumulated. The commission found this to be the cause of the explosion.



The Brunnerton Mine Disaster. Mine officials from left: A. B. Lindop, Manager, Westport Mine; J. Bishop, Manager, Brunner Mine; J. Scott, Manager, Blackball; N. D. Cochrane, mine inspector.



The main shaft at Ralph's Mine showing the cage blown up by the force of the explosion.

RESEARCH INTO UTILISATION

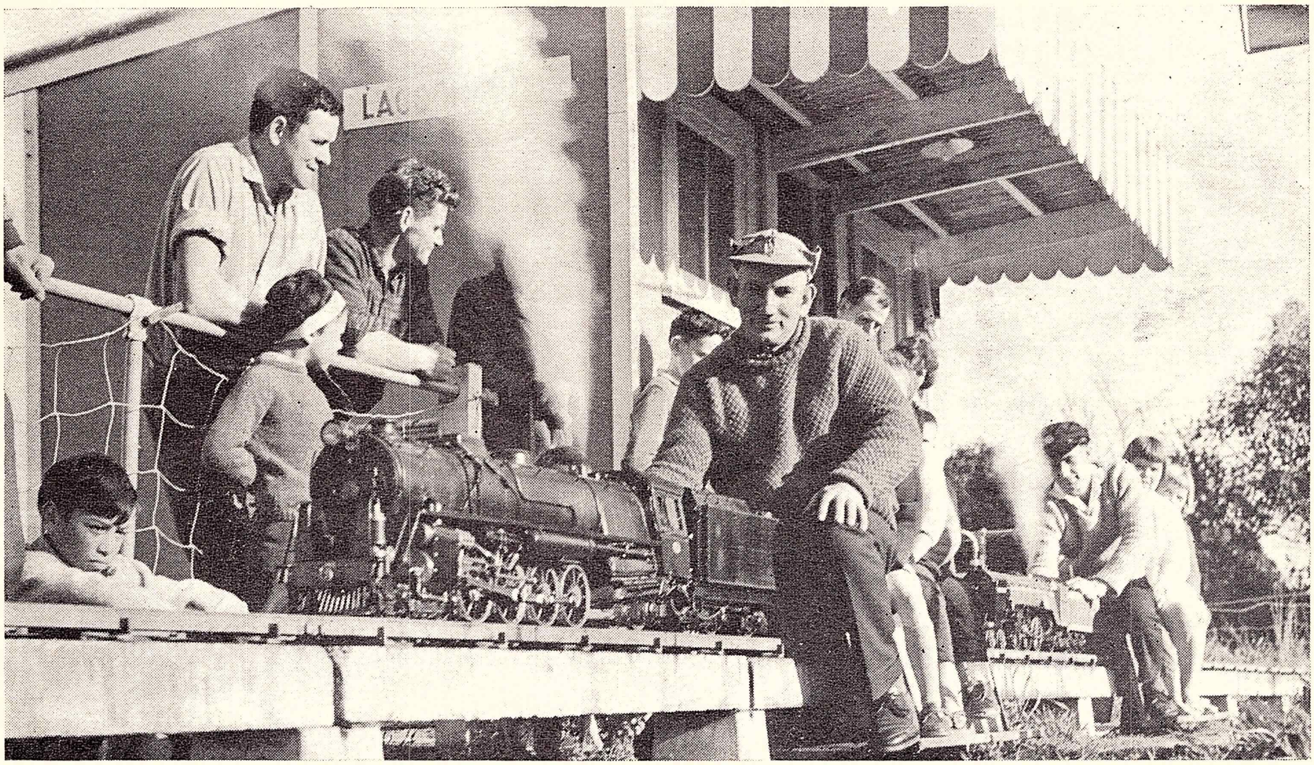
An Italian production expert, who has worked in Israel for the past 20 years, has arrived in Christchurch to spend a year in the University of Canterbury chemical engineering department as a research fellow on coal burners for small plants.

He is Mr Ettore Basevi, now senior research officer for the Israel Mining Industries Institute for Research and Development. Apart from his interest in coal utilisation problems he came to New Zealand to see his son who is a mineral engineer in Auckland.

Mr Basevi said the Israel institute, which also functioned as a corporation, was supported half by the Government and half by its own income. It would soon be independent of outside help because of the success of some of its enterprises.

WEAR YOUR HELMET!

Better a dent in the helmet than a hole in the head!



All aboard! Les Fitt's KB ready to lead off from the miniature station at Panmure Basin.

MODEL ENGINEERS SAY COAL IS BEST

Most of New Zealand's main cities have flourishing model engineering societies which, among other activities, are keeping alive interest in the famous old coal-fired steam locomotives that pioneered New Zealand's internal transport system. Replicas of these engines are accurately built in miniature and attract a lot of attention as they steam round narrow-gauge tracks.

Four of the biggest societies are at Dunedin, Nelson, New Plymouth and Auckland. Let's take a look at the Auckland Society of Model and Experimental Engineers, which has more than 100 active members.

Every Sunday and frequently on public holidays out near the Panmure Basin, passersby stop to look at midget replicas of famous New Zealand and British locomotives on a miniature track.

At the start of a gala day, there is an atmosphere of suppressed excitement among the children and a smell of coal burning and oil as perspiring enthusiasts get up steam in their charges and eager youngsters and even oldsters queue up for seats on the passenger trucks that will take them on several circuits of the 440 ft track.

REAL McKAY

No smoke hangs over the ground, but as was said there is a smell of burning coal. Yes, coal, because these locomotives are the "real McKay", faithful models of the great days of coal and steam, and, moreover, the enthusiasts say coal is the best fuel.

The coal used is Raycarbo, a type of pre-cooked coal, carbonised at low temperatures. It is specially prepared by Waikato Carbonisation Ltd, Huntly, for use in "Esse" cookers and heaters. Raycarbo is an ideal fuel for a quick fire, ample heat and cleanliness, qualities that are a boon to model enthusiasts. It is also used domestically mixed with coke. More than 1,000 tons are produced each year.

Since Raycarbo is a smokeless fuel, model engines do not put out the streamer of smoke that used to delight onlookers as steam engines raced across the open country or gathered strength for departure at stations. But this is compensated for by cleaner conditions and quicker and more effective preparation for what every spectator wants to see — the model engines running round the track carrying truckloads of passengers.

There are wonderful engines here; some are pocket Hercules. They're not too little either, most scaling round an inch to the foot and weighing $1\frac{1}{2}$ cwt or more. Some take years to build.

For instance, Mr B. N. Wilson, Green Lane, began work on his N.Z.R. AB locomotive model 35 years ago. But "a war and a few things like getting married" intervened and it has only been in the past 10 years that he has really managed to "get stuck in". The outcome is a miracle of model duplication. In the tender alone, more than a thousand rivets have each been individually placed and peened by hand.

On the other hand, another enthusiast, Les Fitt, completed a model of a big KB965 used on the Arthur's Pass line within a year — a colossal feat.

INTERNATIONAL TOUCH

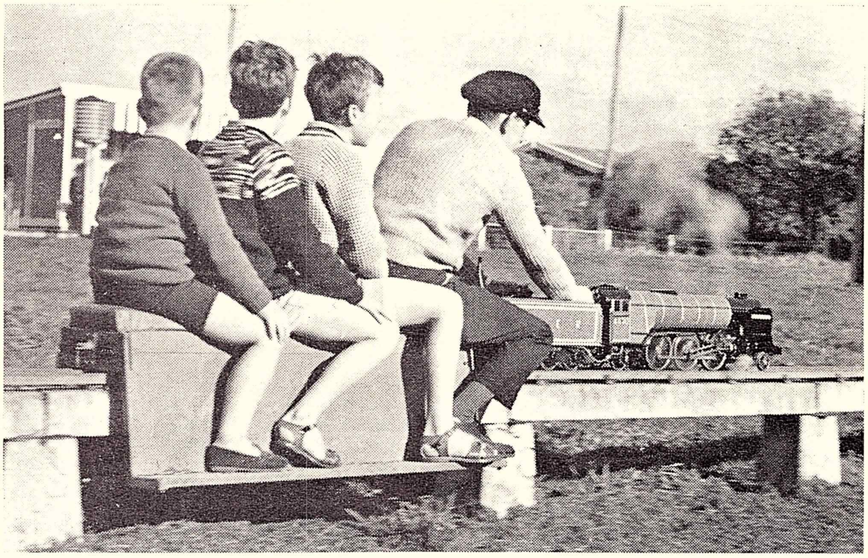
To give the international touch, Peter Baker runs his model of an engine that hauled the famous Flying Scotsman on British Railways, while Dave Watts' beautifully made Britannia-class locomotive has completed many hundreds of miles without trouble, a striking tribute to the workmanship that these men put into their models.

Peter Baker incidentally has another interesting hobby; with a professional touch taking photographs of club models. Two of them are used here, and "Coal" gratefully acknowledges his co-operation, which is typical of the way these men are happy for the public, and especially the children, to share their enthusiasm.

The Mt Wellington Borough Council gave the society a site near the Panmure Basin, where members built a miniature track, railway station and other amenities. It is close to a magnificent sports centre for young people and the society promised the council that every weekend it would run its models free of charge for the benefit of the public.

A year's hard work, much thought and experiment went into this project.

And so today, young and old alike love to watch these beautiful models that bring back memories of the great days of coal and steam. The society is preserving a precious segment of our history in these faithful models of engines and even ships and machines that have contributed so much to making New Zealand the prosperous country it is today.



And aren't the kids loving it! Robert Coppard, Whangarei, driving Peter Baker's 4-6-2 Great Northern.

COAL AGAIN TO FORE

— *In Dairy Factory Awards*

Coal-fired factories were again prominent in the list of butter and cheese awards announced at the annual conference of the Taranaki branch of the New Zealand Dairy Factory Managers Association at New Plymouth last month.

A large attendance of 200 included dairy factory managers, dairy company chairmen, associate members and visitors, including two representatives of the Japanese dairy industry.

The H. E. Moller trophy for average grade butter for the 1966-7 season was awarded to the coal-fired Midhirst Dairy Co. Ltd (Mr J. Vinten, supervising manager; Mr W. Kovaleski, foreman). This factory also gained third place in the classes for a box of butter made under the most favourable conditions and the box of butter chosen at random.

Coal scooped the pool in the cheese classes. The Patiki branch of the Pihama Dairy Co. (Mr V. Miles, manager; Mr A. B. L. Jackson, first assistant) won the Moller trophy and the Geoneoffer Cup (highest award for average grade for the season). The Waverley branch of the Whenuakura - Waverley Dairy Co. (Mr B. Wilson, manager; Mr H. J. McIsaacs, first assistant) was second with the Oeo branch of the Kiwi Dairy Co. (Mr D. Shearer, manager; Mr G. D. Bennett, first assistant) third.

Five of the six awards in the rindless Cheddar and rindless Colby cheese classes were won by coal-fired factories. In the rindless Cheddar Skeet Road branch of the Kiwi Dairy Co. (Mr N. Richards, manager) was first and the Kapuni branch (Mr D. Mitchell, manager) of the same company third.

The Kakaramea Dairy Co. (Mr C. McGuinness, jnr., manager) won the rindless Colby class from the Te Ngutu branch (Mr P. Muler, manager) of the Kiwi Dairy Co., second and the Waverley branch (Mr B. Wilson, manager) of the Whenuakura-Waverley Dairy Co. third.

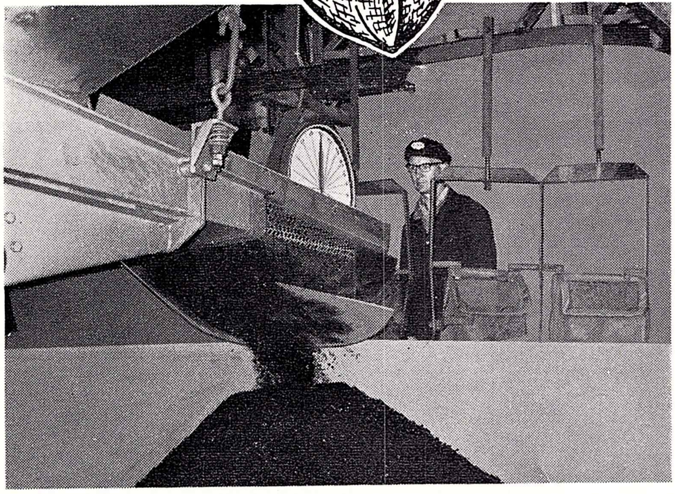
The results are further proof that coal used with modern equipment is a clean and efficient fuel.

this conveyor made the whole system possible

An Allen Stacking Conveyor has been successfully adapted for use in the "weighing-delivery area" of a modernised Dunedin Coal Yard. Conveyor operation is simple:— The bag is fastened to a holder, which is suspended from an overhead carrier. The "weighing piece" of the scales on which the carrier hangs during the filling position is mounted into the Allen Conveyor.

Coal is delivered from the weighing to the delivery area by the Allen Conveyor, which takes the bag, still suspended from its carrier, to any pre-selected point along the conveyor path where the bag and the carrier stop to await unhooking. The conveyor is designed so that while it runs continuously it allows the filled bags to stop at one place and emptied carriers are moved back to the bagging point. This gives a continuous supply of empty carriers to the bagging point as well as an unbroken flow of filled bags stopping at the delivery area to be unhooked.

The use of the conveyor allows one man to distribute 240 to 300 bags an hour to a delivery point any distance from the bagging point. The rating for the system is 1 man, 4 tons; 2 men, 9 tons; and 3 men, 15 tons an hour. The only maintenance is weekly oiling.



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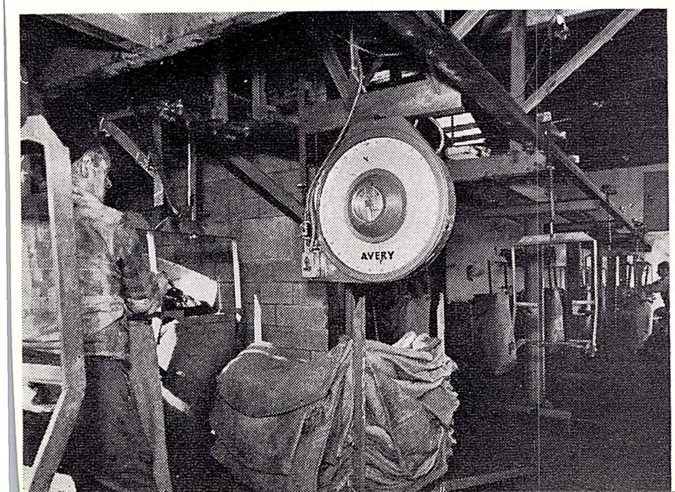
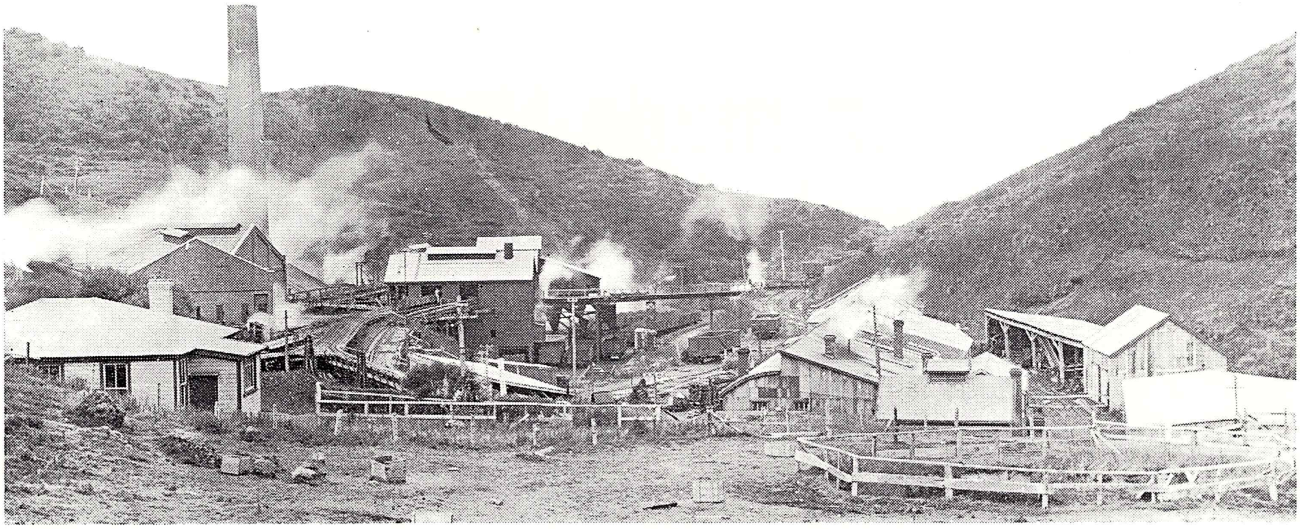


All pictures in this story by courtesy of the Alexander Turnbull Library.

THEY HAVE BEEN MINING COAL AT KAITANGATA FOR MORE THAN A CENTURY



The original Kaitangata mine.

Although authorities differ as to when coal was first mined commercially in the Kaitangata district, the organisers of the Centenary of Coal Mining celebrations are on very safe ground in holding the functions during Easter this year, for coal was being obtained from the area in the 1850s.

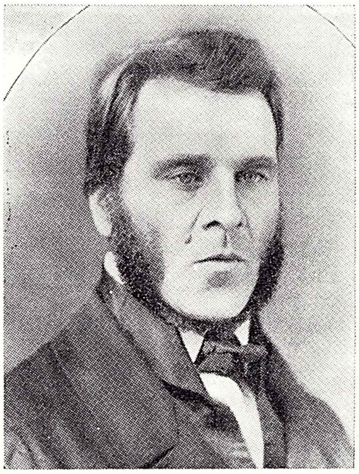
When Messrs J. Thomas and R. J. Harrison surveyed the Otago block between the Clutha and Tokomairiro Rivers under the direction of Thomas Kettle in 1847, the locality now occupied by the town of Kaitangata was marked on their maps as "site for a village".

Settlement in the district commenced from Port Molyneux at the mouth of the Clutha River in 1849, but was mainly centred on Inchclutha and other places in the western parts of the lower Clutha Basin.

In 1855 John Lovell became the first resident of Kaitangata, when he built a house on his freehold section. Progress was accelerated by a sale of town sections in 1862 and like so many other coal areas in the South Island gold mining activities — in this case at Gabriels Gully — assisted the rapid growth of population.

Kaitangata was created a town district in April 1882 and attained borough status in August 1887.

Access to Balclutha and the main highway was primitive during the early years of settlement and the Matau branch of the Clutha River was the chief means of transport and communication until the railway line was constructed in the middle 1870s. During this period it was easier to trade with Dunedin by shipping, despite a bar at Port Molyneux.



Frederick Tuckett, who reported the existence of coal at Coal Point in 1844.

The existence of coal in the Kaitangata district was first recorded by Frederick Tuckett in May 1844. Tuckett was appointed principal surveyor and civil engineer to the New Zealand Company's Nelson settlement. He was present at the Wairau massacre on June 19, 1843, but escaped in the brig Victoria. While on a visit to the Otakau (Otago) Harbour to survey a site for the projected Scottish Free Colony of New Edinburgh, he sent his brig Deborah to Port Molyneux and while journeying overland discovered deposits of coal on the coast at Coal Point.

MAJOR OBSTACLE

The lack of suitable transport was a major obstacle to the large-scale mining of the coal. In the 1850s private parties worked the coal deposits in parts of the district and shipped it to Dunedin and other coastal towns. Some coal was sent by bullock dray to Balclutha and Tokomairiro.

Two milestones in the progress of the coal mining industry in Kaitangata were the construction by J. G. Lewis of a railway from the coalfield to the Matau stream in 1861 and the entry into a shipping service on this stream of the S.S. Taupeka, which carried the coal to Port Molyneux for transhipment by coastal vessels to Dunedin.

The first organised effort to exploit the coal reserves of Kaitangata was made with the formation in 1872 of the Kaitangata Coal Company, which acquired mines already opened near the town three years earlier and in 1875 it opened the original Kaitangata mine on the property of William Aitchison.

The hazards of the Port Molyneux bar restricted shipping at times, and the extensions of the South Island Main Trunk railway to the Clutha River in September 1876 was hailed as a progressive step. Work commenced immediately on the construction of a link with the Main Trunk from Kaitangata to Stirling and on June 19, 1876, the first consignment of coal from the Kaitangata colliery was railed direct to Dunedin. The price of coal at the mines was 11s a ton and railage to Dunedin and Invercargill 5s 2d and 9s 2d a ton.

The Kaitangata railway is worthy of special mention, as it is the oldest existing privately built railway in New Zealand. The Coal Company changed its name to the Kaitangata Railway and Coal Company in 1875 and constructed the line, although when first opened it was run by New Zealand Railways. However, in 1898 this company was bought out by an English syndicate which worked Castle Hill mine at the northern end of the town and also ran the line on its own account. Known as the New Zealand Railway and Oil Company Ltd, this firm worked the coal mines and the Orepuki shale oil deposits, but the failure of the Orepuki venture in 1926 put it out of business. In April 1927 a new Kaitangata Coal Company was formed to control both railway and mine until the State Coal Mines took over in 1957. The line still carries coal from Kaitangata to Stirling.

A feature of the Kaitangata colliery line was that until road competition caused this service to be discontinued in 1937 it also carried passengers. A branch line ran along the main street of the town.

The old Kaitangata mine was closed seven years ago after a yield of 8,000,000 tons. Coal has also been produced from smaller mines at Taratu, Lakeside, Kaituna and Kai Point. Today, most of the coal of the area comes from the State-owned Wangaloa open-cast and the Lockington mines and is still being obtained at Kai Point.

In its century of coal production the two worst tragedies at Kaitangata were the firedamp explosion of February 1879 which killed 34 men and the great floods of 1878. The mine explosion is covered elsewhere in this issue and few would remember the floods, although for many years local residents dated family events from these two occurrences.

WORST EVER

The great Clutha flood of 1878 is one of the worst in New Zealand history. Property worth hundreds of thousands of pounds was swept away and lives were lost. A long severe winter had left an unusual depth of snow in the watersheds of the rivers and hard frosts had consolidated the snowfields which were 100 feet deep in places.

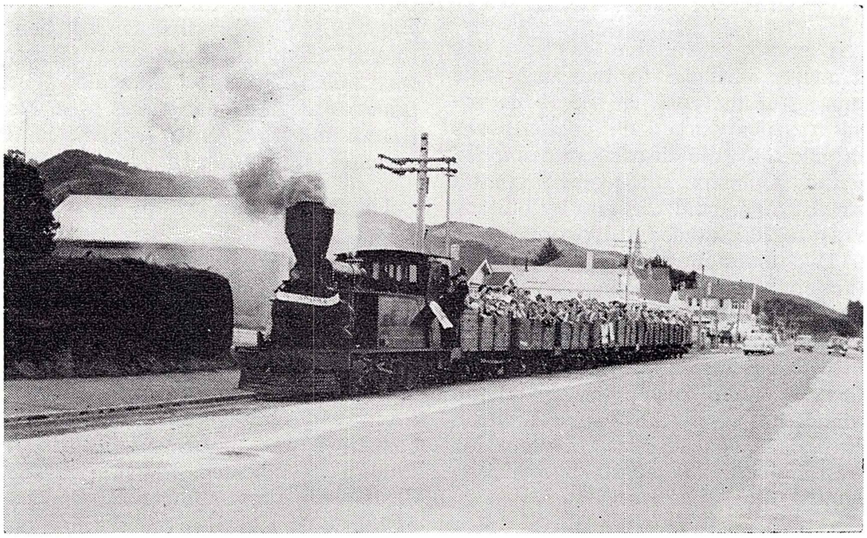
The warm north-westerly September winds blew for several days, after which there were 36 hours of continuous warm rains. Then the thaw set in, swiftly and destructively. On September 26 the Clutha and its tributaries rose ominously and by the end of the month every river and stream in the district was in flood, most of the water flowing into the Clutha.

On October 10 a 24-hour warm downpour hastened the rapid thaw and for 200 miles from mountains to coast settlements and towns were faced with annihilation. Balclutha was flooded and the Kaitangata area was an unbroken expanse of swirling water and debris, as houses, bridges and livestock were swept down the Clutha to the sea.

All comunications were wrecked, but the most lasting damage was to Port Molyneux at the river mouth. The flood gouged out a new channel and left the port installations high and dry, and as the waters receded a great sandbank appeared and completely blocked the entrance to the harbour. To this day Port Molyneux remains a port in name only.

These two events and the doings of old King Coal and his subjects will be talking points at the celebrations, but someone is bound to ask the meaning of the name Kaitangata. There are a number of versions, of which the most colourful gives the meaning as kai (to eat) and tangata (a man) — the eating of a man. Legend relates that after a battle between two Maori tribes over eeling rights on the lakes the defeated chief Mokomoko was eaten.

The Kaitangata community is noted for its progressive and courageous outlook, a trait that has enabled it to weather more than a century of ups and downs. "Coal" magazine is proud that our industry has played such a leading part in the activities of the past century and with all readers joins in saying "Well done Kaitangata".



The last run of the Kaitangata coal train through the main street was a great occasion for the schoolchildren who were given a ride to mark the event. Today the line still carries the coal out of Stirling but with the new siting of the bins does not come down the main street.

N.Z. Coal Research Association Seeks Director

The position of director of the recently formed New Zealand Coal Research Association has been widely advertised in New Zealand, Australia and Britain to obtain the best man possible.

The association, financed by the coal industry and the Government, is planning an energetic research programme to promote to the full the coal industry, second only in annual value to constructional materials in New Zealand.

Coal still provides more than 60 per cent of New Zealand's heating units, but is now meeting with heavy competition from other fuels.

In a recent statement the Minister of Science, Mr Talboys, said fuel oil cost about £4½ million a year to import and it had been estimated that every ton of coal replaced by fuel oil represented an additional expenditure of £3 10s in overseas funds.

The coal industry's contribution to the financing of the Research Association, from the existing levy of 6d a ton on the wholesale price of coal, is expected to yield £45,000 to £50,000 annually, The Government is to subsidise the working expenditure £ for £ up to a limit of £50,000.

Some of the first categories for research include :

The avoidance of waste, particularly by finding uses for slack coal;

Making coal use cleaner and more convenient (smokeless combustion, pulverised fuel and "white collar" handling);

Development of coal-burning appliances best suited to New Zealand conditions and coals;

Development of automatic coal-fired boilers;

Reducing costs of coal by solving current mining and processing problems;

Giving the customer an acceptably uniform product and an efficient after-sales service;

Finding new uses for coal.

"Further loss of ground by the coal industry to its competitors would bring serious problems for the economy of the country," said Mr Talboys recently in announcing Government approval for the setting up of the association.

"It is of the utmost importance that coal should be able to conform to the present-day requirements of industrial and domestic consumers; in this way we shall be able to obtain the maximum benefit from this important natural resource. This will be the main objective of the new research association."

The association consists of three Government representatives, a nominee of the Minister of Science, the Under-Secretary for Mines, the Director of Publicity, and representives of the North and South Island Coal Merchants Federation, representatives of private mine owners, the president of the United Mine Workers Union of New Zealand, a representative of the Institute of Coal Mining and the director of the Coal Advisory Service Association.

The association has premises at Gracefield, Wellington, and already a small staff is engaged in research.

The new organisation will eventually absorb the coal research at present being carried out by the Coal Advisory Service Association, the Mines Department and the Chemistry Division of the Department of Scientific and Industrial Research.

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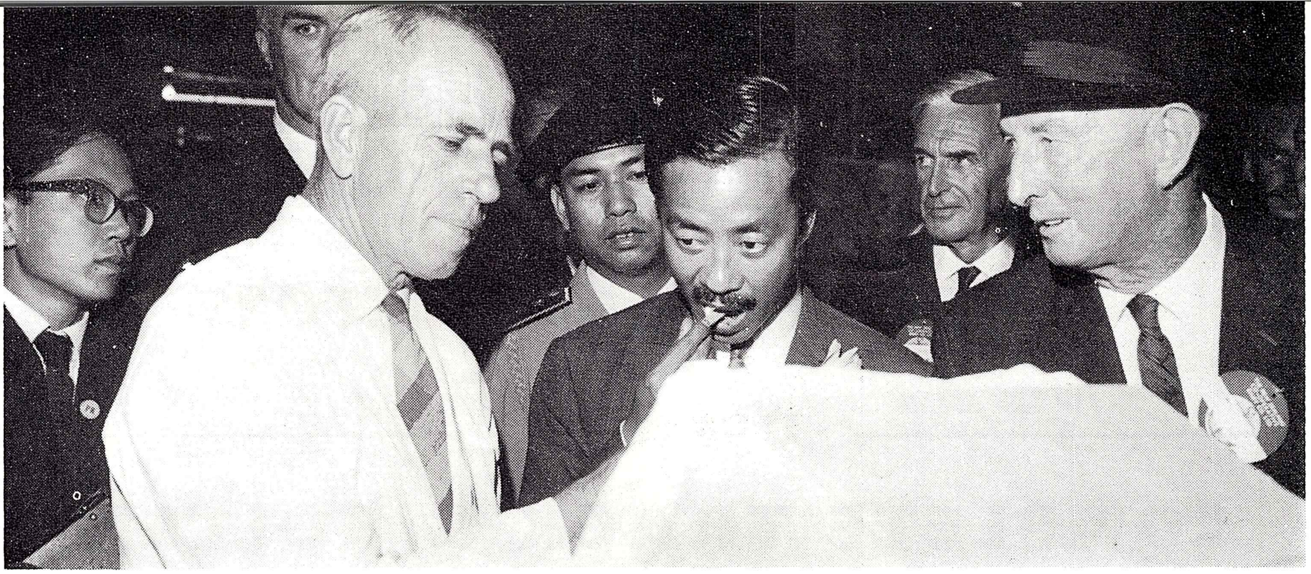


"Tastes good" is the verdict of Marshal Ky as, flanked by Mr E. D. Missen (left), factory butter manager, and Mr R. S. Bates, deputy-chairman of the New Zealand Co-operative Dairy Co. Ltd., he savours the product of one of the largest butter factories in the world.

Vietnam P.M. Sees Part Coal Plays in New Zealand's Top Industry

Highlight of the New Zealand visit of Air Vice-Marshal Ky, Prime Minister of South Vietnam, was his afternoon at a dairy factory and a farm in the Te Awamutu district.

"I am tickled pink," he told Mr R. S. Bates, deputy chairman of the New Zealand Co-operative Dairy Company Ltd, referring to the warm welcome he received from the 270 employees of the company's butter and milk powder factory at Te Awamutu.

Marshal Ky was told that the company used nearly 200,000 tons of coal a year from Waikato mines and that from its 46 factories last season came milk products valued at £52.6 million.

Security and protocol had gone temporarily by the board as he rushed over in pouring rain to shake hands with the cheering crowd of workers and townspeople. He had an especially warm handshake for several Maoris.

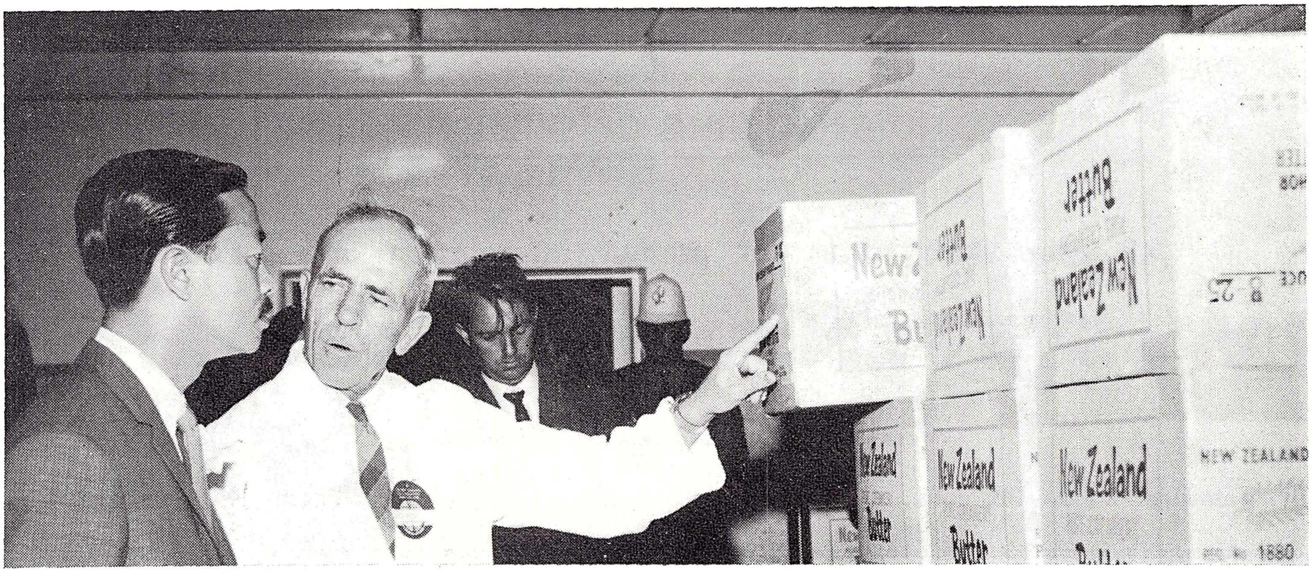
Marshal Ky was told the factory, one of the biggest in the world, handled 31 million lb of butterfat (5½ per cent of the national total) last season from its 1100 suppliers. It made 23,264 tons of milk powder and 13,590 tons of butter.

Escorted by Mr Bates and the butter manager, Mr E. D. Missen, Marshal Ky watched butter being made and tasted a little from a 2½-ton batch, fresh from one of seven huge churns. He also saw the skim milk being evaporated and dried into milk powder under the management of Mr J. D. Shaw.

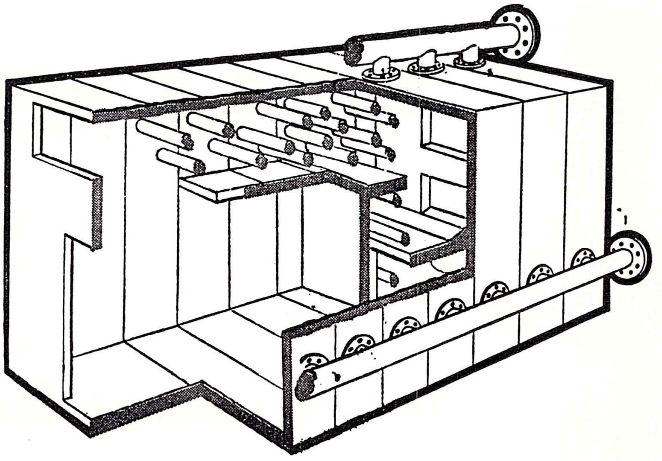
He asked about the high and low pressure steam systems and was told high-pressure steam was supplied by three John Thompson water-tube boilers, each consuming 160 tons of coal daily, and that half of the steam generated was used as low-pressure steam, broken down by two generators with a capacity of 1500kw.

The coal comes from the nearby Pirongia field.

Mr Missen shows Marshal Ky cartons of butter ready for distribution.



Famous English HARTLEY & SUGDEN



Specify a Blue Ribbon Quality Steel Sectional Hartley & Sugden Boiler, because: Assembly is no problem in the most inaccessible boiler rooms. Sections will pass through doorways. For future expansion, increase boiler capacity by adding further sections. Wetbase design eliminates the necessity for firebox refractories. Unrestricted water flow requires the use of only one return, and one flow header. Firing can be by coal, oil, natural gas and manufactured gas. Boiler Working Pressure is 60 P.S.I. All Hartley & Sugden Steel Sectional Boilers are tested to 120 P.S.I. before delivery. Can be used with pressurized combustion. Construction is to British Standard specifications. Rating of the boilers ranges from 4274 to a maximum of 4762 B.T.U's per square foot of heating surface.

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★ CRITICAL DESIGN

This highly effective boiler is the result of many years of successful boiler design to achieve critical size and shape of the combustion chamber and to provide for coal or oil firing.

★ EASY ACCESS FOR CLEANING

The Hartley & Sugden M.S.C. range of Steel Sectional Boilers has been designed for simplicity of cleaning to promote water circulation and ensure high combustion efficiency.

★ RATINGS AND DIMENSIONS

We can supply you with Sectional Boilers in the M.S.C. range from 500,000 B.T.U's to 5,000,000 B.T.U's.

★ VARIATIONS

Boilers for automatic stoker or oil firing can be offered.

★ DESIGN DATA

We would be pleased to supply complete details of design data up to a maximum working pressure (standard range) of 60 p.s.i.g.

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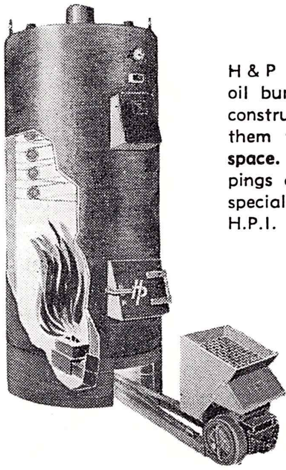

H & P Boilers can be fired by either automatic oil burners or Automatic coal stokers. All steel construction, high efficiency and design allows them to be used in the minimum boiler room space. If required, mounting flow and return tappings and fire doors can be repositioned to suit special conditions. Boilers are tested to 100 H.P.I. hydraulic pressures.

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The Strongman explosion and the
a service carried on by volunteers every

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SQ

have short but n
of service in N

A seven man rescue team in training at Dobson Rescue Station wearing the Proto apparatus. Behind them is the rescue van. From left (back row): Messrs R. Duggan, A. Cowan, W. Kinsey, N. Adams. Front row: J. Walker, W. Fitzmorris, J. Forbes. Rescue station officer Mr R. J. Neilson is standing by the van.

Only on occasions such as this do the public learn of the existence of these rescue squads that knowingly face the perils of fire, gas and explosion. Most of their work if less spectacular is arduous, as they seal off fire affected sections, recover equipment and replace plant in damaged areas. They are handymen, able to turn their energies to any task under difficult conditions.

Many authorities consider that New Zealand is a world leader in mining safety and rescue work, but only as recently as 1936 the Government passed the Rescue Stations Act. Prior to this many of the coal mines in this country were privately owned and the companies had their own rescue and emergency services. They were not organised or trained as at present.

Shortly after the Act was passed Mr Frank Duffy, New Zealand's first superintendent of Mines Rescue, began the rescue service by training two teams, each of five men. Mr Duffy had organised rescue work for private companies on the Buller coalfields and his trainees began on the Mark IV Proto respirator still the standard equipment for rescue work.

From that small beginning of 10 men trained at the Liverpool mine, the only large State-owned mine of the West Coast at this time, the rescue service has expanded enormously and thousands of men have been trained by Mr Duffy and his successors.

One of those first ten pupils was Mr Archie Auld, present New Zealand Superintendent of Mines Rescue, who is the only one of the original group still active in this work.

The first rescue station was opened in Dobson in 1939 under Mr Duffy. Then followed stations at Rotowaro (1941), Ohai (1943) and Granity (1948). Rescue sub-stations have been established at Reefton, Kaitangata and Ohura. The active membership of the four rescue stations totals about 125, and there is no lack of volunteers. Since the Strongman explosion there has been a surfeit of volunteers.

To qualify for acceptance in a rescue service squad a man must have been two years in underground mining. He must pass a medical examination and be prepared to obtain a first aid certificate.

The initial training is one day each week for 14 weeks, after which the men undergo practical and oral examinations. When they have passed the examinations the men are issued with a certificate of proficiency in mine rescue work and are then required to attend at least six practices a year. Members must undergo a medical check each year and retire from the service at 50 years of age.

Trainees are first introduced to the Proto respirator and told how long it will last and how it works. The Proto will supply air for two hours and can be worn during hard or heavy work that accelerates the breathing rate. The nose of the wearer is clipped and breathing is through the mouth only.

If gas is likely to affect the eyes, special smokeproof goggles are worn and lighting is provided by an electric lamp clamped to the helmet.

Connected to the mouthpiece is a cooler filled with sodium phosphate, a cooling agent.

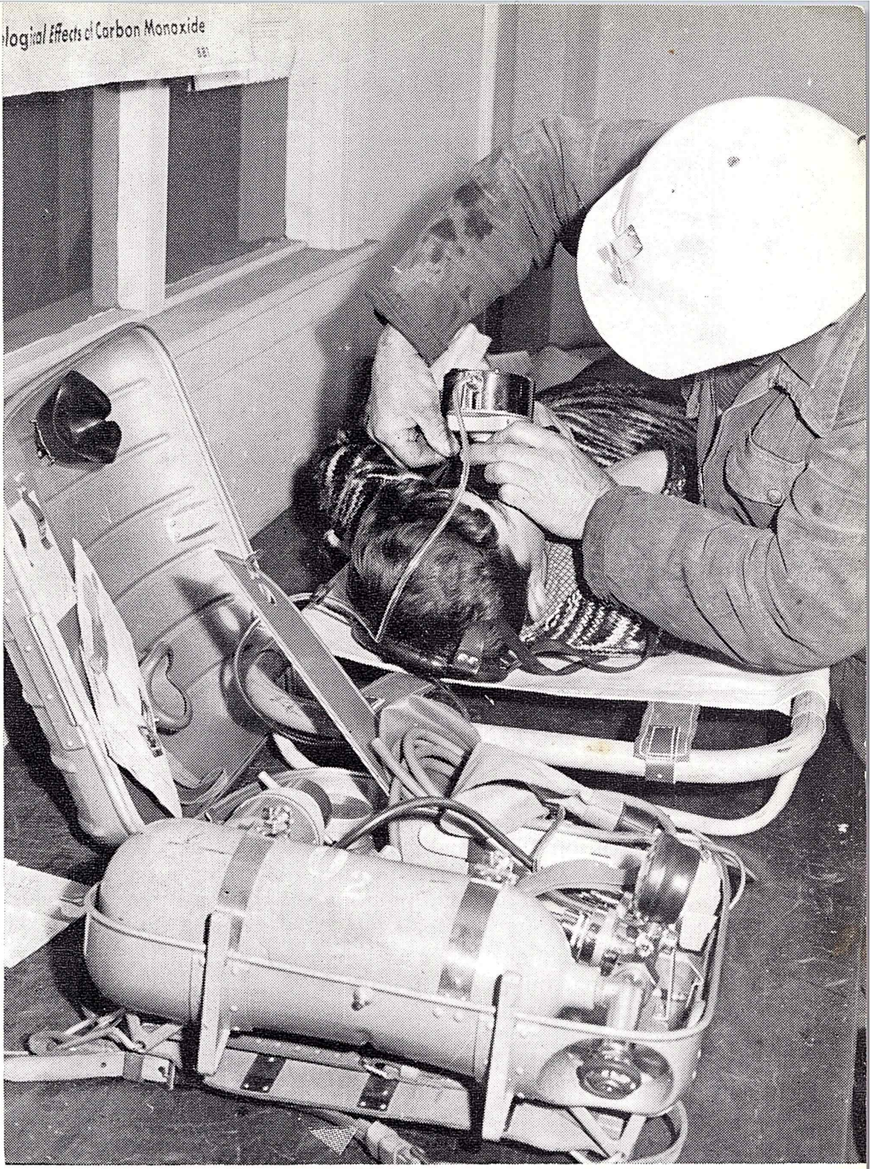
In the breathing bag at the front of the apparatus is mixture cooled protosol which consists mainly of caustic soda and lime. This absorbs the carbon dioxide from the exhaled breath and oxygen is returned to be breathed again. The wearer shakes the bag every 20 minutes or so to expose new surfaces of the protosol.

The rubber breathing bag has strong ridges running down the inside

eroic work of the trained rescue squads spotlighted minu te of every day mines are working.

ER RESCUE UADS

agnificent tradition ew Zealand Mines



The Dreager automatic resuscitator is used to "revive" a rescue worker. This is a back pack and can be carried into the mine.

so that the wearer can still breathe if pinned under a heavy beam.

Trainees spend considerable time getting accustomed to the apparatus and it is not uncommon to see them running or walking briskly around the roads to condition themselves to breathing under heavy exertion. At first one hour of breathing through the mouthpiece in the open air is followed by two hours of breathing through the Proto. The final test includes two hours of breathing in irrespirable air.

CONDITIONS SIMULATED

As far as possible actual rescue conditions are simulated for training sessions and all the rescue stations possess a special smoke room fitted with rails, mining trucks, bar and leg sets and other mining apparatus.

Trainees are required to wear the respirator when pushing laden trucks, chopping wood, and lifting heavy weights in the smoke filled room.

Stretcher drill, first aid, use of a smoke helmet and instructions on procedure and conduct after an emergency call are stressed as a most important part of the training.

The men engage in all phases of mining work and when an emergency call is received make their way as quickly as possible to the scene.

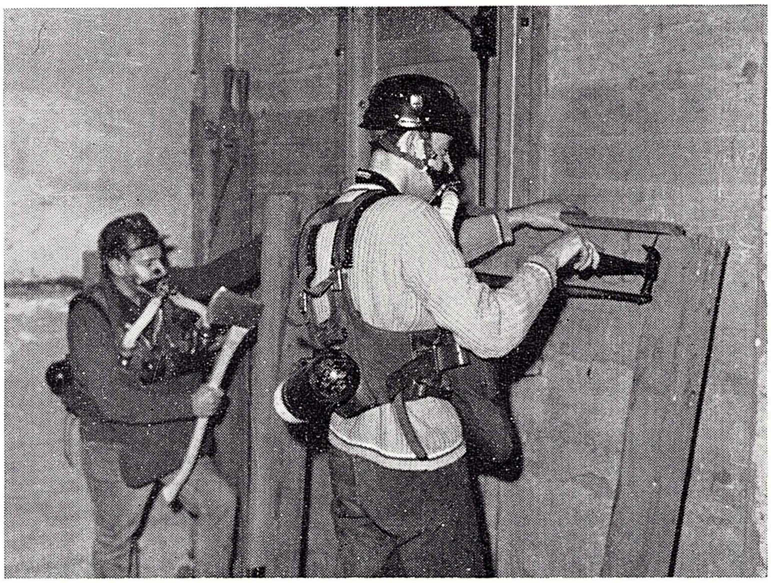
Each control station is supplied with a motor van that can be converted to an ambulance if required. This van is also equipped with sets of Proto breathing apparatus, all the equipment necessary for dealing with a fire, special rescue stretcher and medical equipment. There is a man on duty or call at each of the main rescue stations all the time the mines are working and he makes his way to the scene of the emergency call as swiftly as possible.

Several Proto sets are kept at all mines and men trained in their use are available to use them as required. Mr Auld told "Coal" that the first major rescue carried out by the squad was in November 1940 when an explosion at Kaye and Party's mine at the Ten Mile on the Greymouth-Westport coast road killed five miners and injured two others. Under Mr Duffy the rescue squad was the first to enter the mine and bring news of the death roll.

Mr Auld has had a long connection with rescue work in New Zealand and his enthusiasm for this was fired when as a lad he watched from a distance the rescue during the 1926 Dobson explosion that claimed the lives of nine men.

The Kaye and Party rescue was his first in a career that has seen him as officer in charge of Dobson and Ohai stations before assuming his present post of New Zealand superintendent in 1955.

Mr Auld told "Coal' 'that most of



Knocking down timbers in a simulated emergency.

the work of the rescue squad is concerned with mine fires and explosions where poisonous gases will be met, and the examination and reopening of sealed areas for production.

All areas that are sealed in mines contain dangerous gases. The constant fear when a fire is sealed off is the ignition of explosive gases that may come mostly from the natural methane or distilled gases due to the fire.

Fires in the mine are mostly caused by spontaneous ignition of gases similar in action to the common haystack fire.

The usual procedure of the rescue squad to curtail a fire, unless ample water can be obtained immediately, is to erect stoppings in all roadways to exclude the air.

In this way the fire uses up the oxygen and carbon dioxide is released, killing the fire through lack of oxygen.

Using their Proto apparatus the men get right to the seat of the fire and block off the sections with brattice (hessian cloth) plastered over with a mixture of cement and lime.

When the fire is out the mine is re-entered and the seals removed. It is then evacuated for 48 hours until the air has circulated and there is no possible chance of a further fire.

MOST DANGEROUS

Mr Auld considers that the most dangerous gas in a mine is white-damp or carbon monoxide which has no taste, colour or smell and is extremely poisonous. It is given off after a fire or explosion or from incipient heating of the coal seam.

Rescue squads are taught to detect all the different and dangerous gases found in a mine.

Today, instruments are used for gas detection, although many mines still use a safety lamp. For many years in the earlier days of New Zealand mining live canaries were used as gas detectors. These birds were placed in cages near where the men were working. If the birds died, it showed the presence of deadly gas and as the canaries were affected by gas 10 times faster than a man, it gave the miners time to get out.

Several people conducted a most profitable side-line of breeding canaries for use in this work, but it did not find favour with the S.P.C.A.

Men who brave the unknown after a mine fire or explosion have various reasons for doing so. A recent survey elicited the following replies :

"I joined because I thought I may be able to save my friends some day," was the foreboding comment of a Strongman miner just a few weeks before he was given this opportunity.

"It is for your own benefit in the long run," said another.

"When a mine goes idle through a mishap you have to sit at home anyway so you might as well be in a position where you can be of some use and see what is happening."

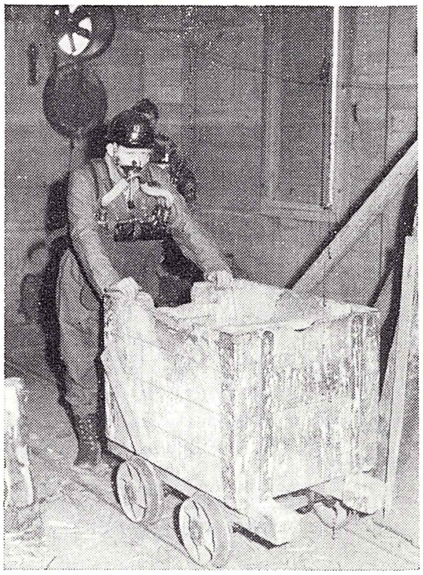
There was considerable truth in the view of another Strongman miner that knowledge conquers fear.

"You lose that fear through knowing what to look for and how to act to prevent accidents. When you are ignorant of the dangers and how they are caused it imparts a deep-down fear. The knowledge and confidence gained through rescue training eliminates that fear."

"Is the work dangerous?" Mr Auld was asked.

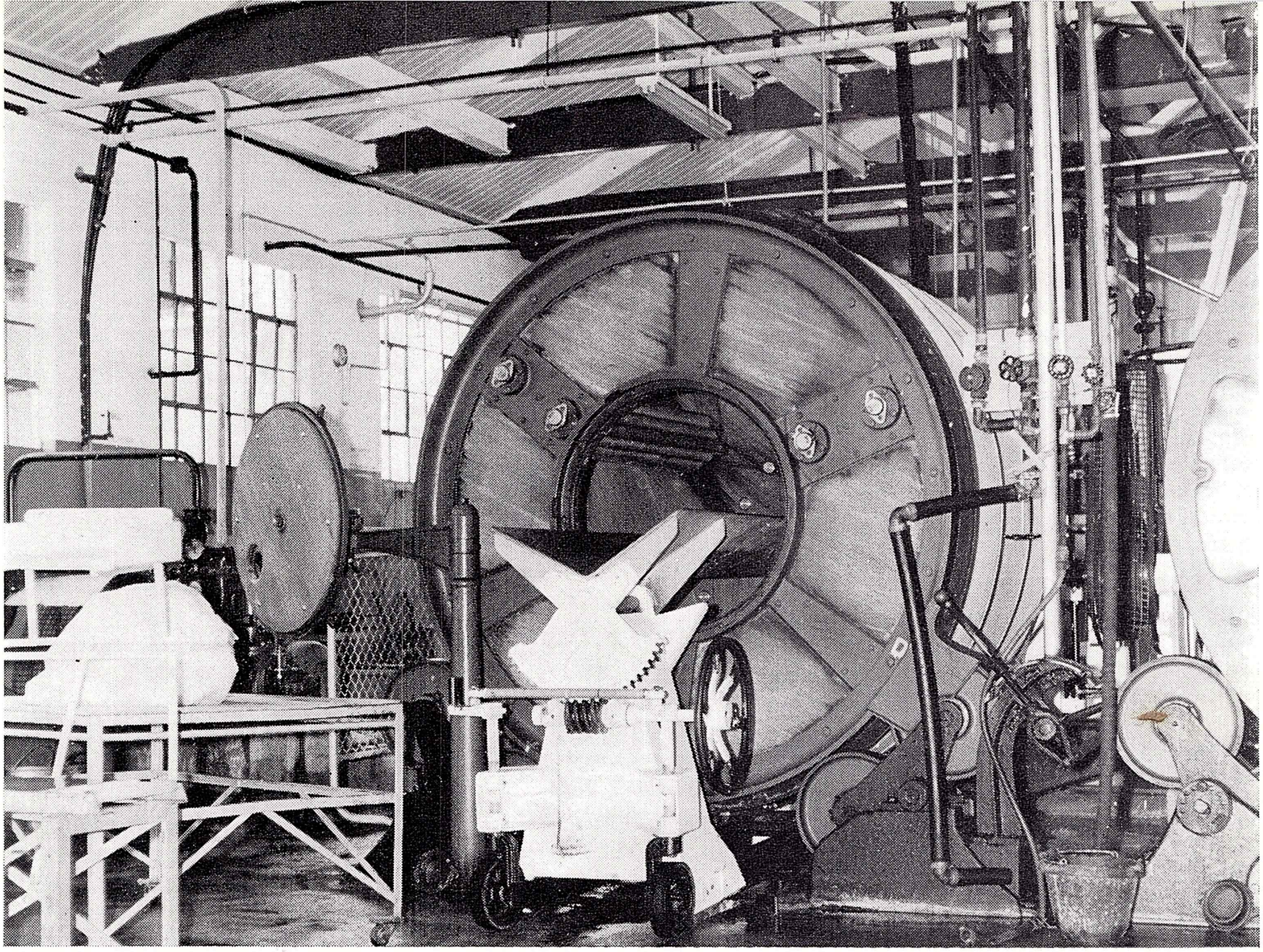
"It is dangerous only if you get killed," was his reply.

The New Zealand coal mining industry has built up a magnificent tradition of service and courage over the past century. Though the rescue service is only a fledgling in years, it has already made a valuable contribution to the safety and welfare of the men who mine deep in the earth.



Moving laden trucks.

While the present type of men are applying in abundance to enter the rescue service New Zealand superintendent Mr A. Auld and the regional rescue station superintendents Messrs R. J. Neilson (Dobson), R. J. Crook (Ohai), D. Bell (Rotowaro) and W. Ireland (Granity) have nothing to fear about the continuation of this great tradition.



The heart of the factory, the main butter churn.

COAL HAS HELPED KARAMEA TO WIN MANY BUTTER AWARDS

Although the latest census figures give the population of the little Buller township of Karamea as fewer than 300, the district is known far and wide for the outstanding quality of the butter produced by the Karamea Co-operative Dairy Company's factory at Market Cross.

For most of the earlier years of production the boilers were fired with wood from the nearby bush. More recently Buller coal has been used to give the boilers a boost, and it is now the major fuel at the factory.

The list of show awards won by Karamea butter factory would fill this issue of "Coal". The major triumphs include the King George Challenge Cup at the Waikato Winter Show on several occasions; the South Island points prize at the same show three times; the gold medal for the best box of butter at the 1936 Dominion show at Hawera; second placing at the Scottish Dairy Show, Glasgow, for overseas salted butter; the gold medal for pats at the 1961 Royal Show; the McCarthy Perpetual Challenge Cup; the Lyttelton Harbour Board's challenge cup (several times) for the best box of butter exported from that port; and hundreds of minor championship awards.

The record of show successes established by his predecessors has been continued by the present manager, Mr K. G. Crosby, who was appointed in 1964. During his three seasons at the factory his butter has won numerous awards, including the Lyttelton Harbour Board challenge cup two years in succession and the Waikato Winter Show's South Island points trophy.

Karamea butter has a deep golden colour that gives it that extra palate-tempting appearance. Mr Crosby states that this is because the herds of the suppliers are predominantly Jersey.

Last season the output reached a record 596 tons, a substantial increase from the 42 tons of the initial season of the present company in 1911.

History records that the first settlers arrived at Karamea aboard the small steamer Charles Edward, which anchored in the Karamea River on November 27, 1874.

It was some time before the land was cleared for farming. Those who had excess butter used to salt it away in kegs and ship it to Westport, where it was paid for on the barter system. This arrangement did not prove very satisfactory and the Karamea Co-operative Dairy Company was formed in 1893. The owners of 400 cows attended a meeting on April 26, 1893, and expressed grave dissatisfaction with the barter system of payment, all wanting to receive cash for their butter.

Mr Meyrick Jones was appointed as organising secretary and as a result of his efforts the factory was functioning that year. The company began with holders of 900 £1 shares representing 310 cows, and suppliers were to be paid 3d gallon for milk. The factory was a short distance on the township side of the present site.

TRANSPORT PROBLEMS

Present-day factory managers will shudder at the problems facing the first Karamea factory executives. Boat service was monthly, which meant that the butter had to be stored in a pit dug in the bank near the factory. As the butter rarely arrived at the market in first-class condition, prices did not realise expectations and the final payout was much less than hoped.

That these difficulties proved insurmountable is assumed from a report, in the "New Zealand Farmer" late in 1897, that "Mr W. R. May of Richmond has purchased the plant of the Karamea dairy factory and intends running a private factory in connection with his other business."

However, all was not lost for in 1906 the firm of J. Curtin and Co. opened a factory near the site of the old one and made an agreement with the farmers to purchase butter at "about" 6d lb. This agreement also provided for the right of renewal for a further 10 years or the purchase of the factory.

At the end of five years, in 1911, the option to purchase was exercised, and the newly formed Karamea Co-operative Dairy Co. paid Curtins £2250 for the factory.

The original directors of the company were Messrs W. T. Gilbert, C. Lineham, P. Hawes, B. Cox, G. C. McNabb, P. Jordan, J. Ray, J. Connor and E. Issel. Mr Gilbert was appointed the first chairman of directors.

The new company went into business on Septebmer 20, 1911, and 42 tons of butter was produced in that initial year. Mr A. H. Jennings was the first manager and the butter

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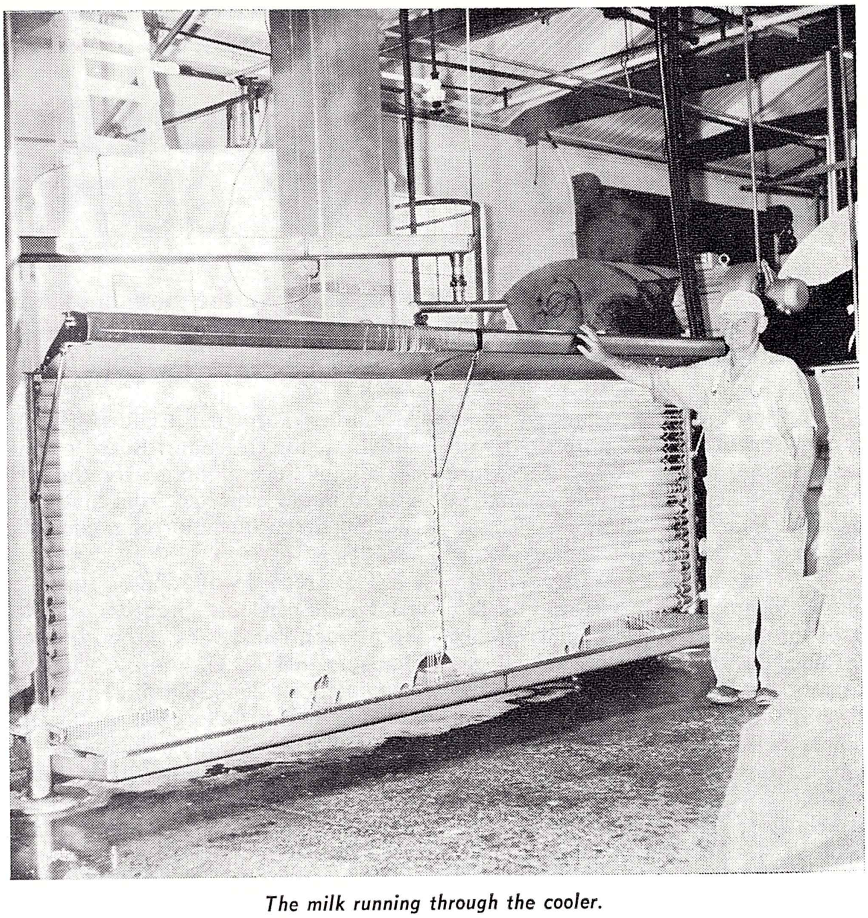
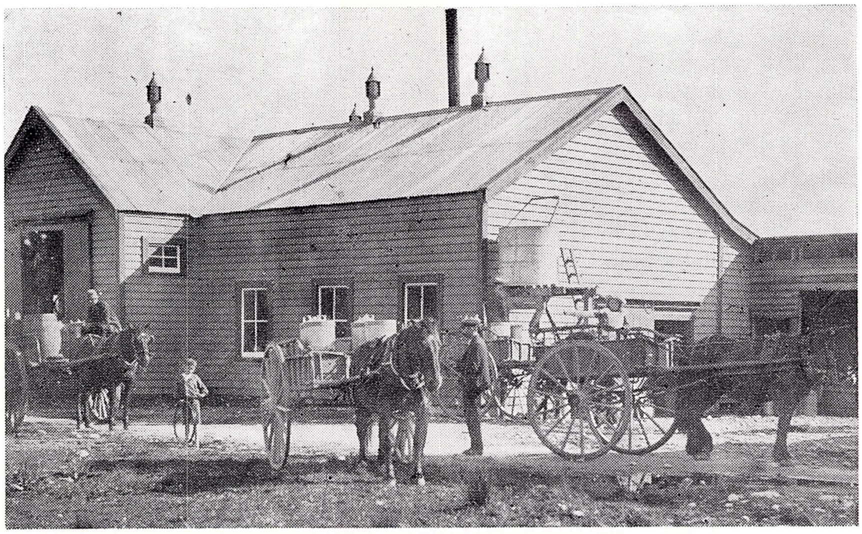
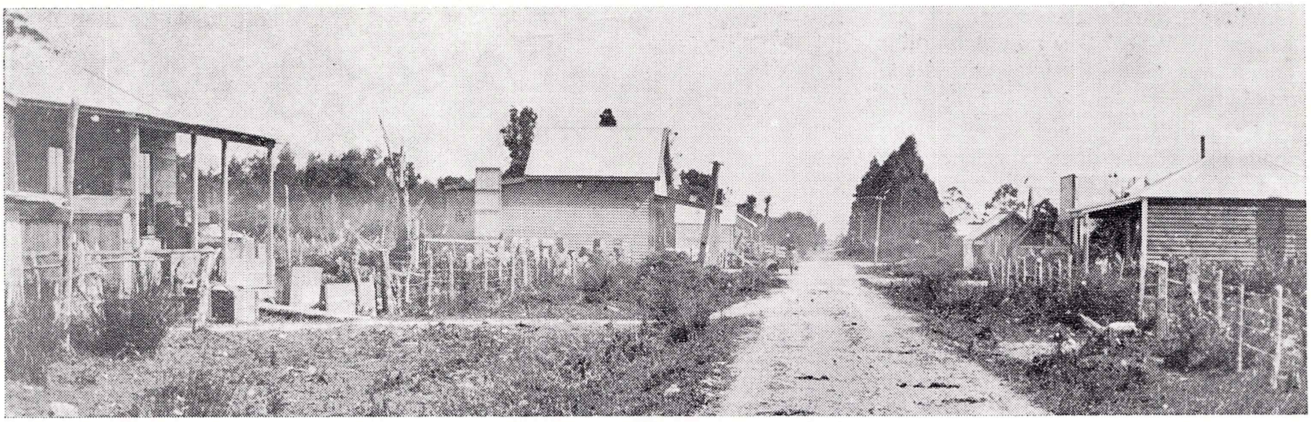
The finished product. Factory manager, Mr K. G. Crosby, surveys with satisfaction samples of Karamea butter which has won so many high awards.



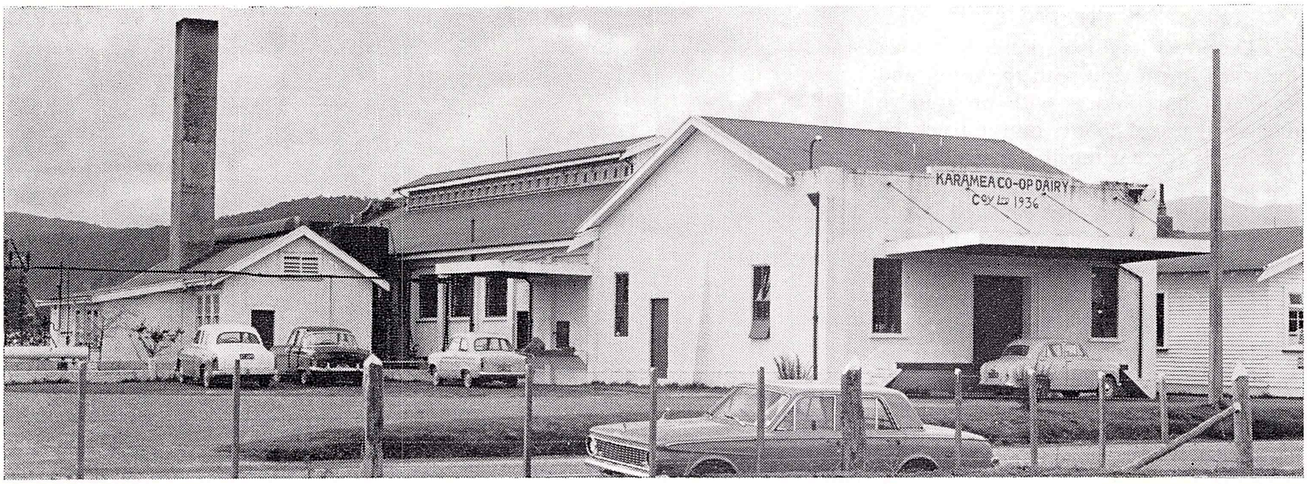
The milk running through the cooler.



The factory operated by Mr Curtin, 1906-1911.



Market Cross, 1906. From the right, Mrs Hawes' store, Curtin's store, dairy factory. From left, Dean's store. Issel's store, Ray's butchery.



The Karamea Co-op. Dairy Factory at Market Cross.

not sold locally was sent to the Wellington market.

The payout for the first year was 10.77d lb for butterfat and over the next 22 years fluctuated from 26.18d lb in 1921 down to 8.5d in 1934.

Today cream collection at the farm gate is taken for granted but delivery to the Karamea factory was once one of the real problems of the farmer in that area.

Roads were narrow and rutted and the journey to the factory by dray took a considerable part of the day. Many of the drivers were girls to whom the outing was the highlight of a rather dull existence.

However, some areas did not have any roads and it was ncessary to use the beach as a roadway. Thus the time of cream collection was set by the tide. The Kongahu beach was frequently used as the main route of the cream run. From Kongahu onwards were the mudflats from the mouth of Granite Creek to the mouth of the Karamea. When the tide was right cream was taken by boat across the mudflats.

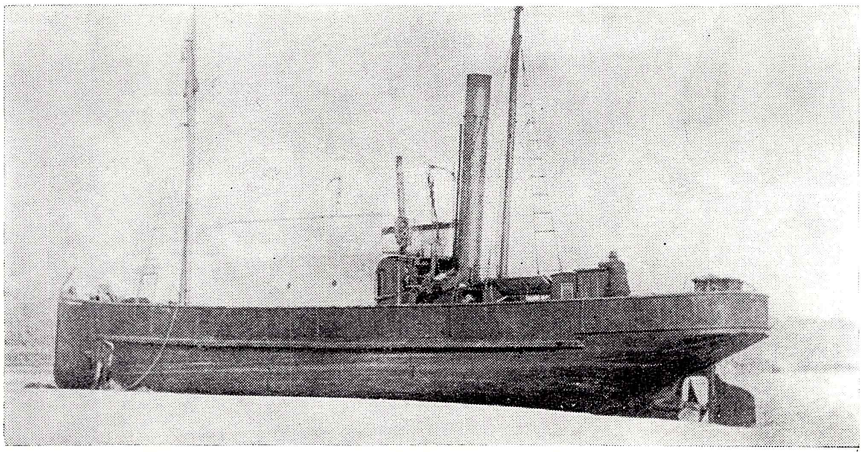
Cream carting over some of the roads was a hazardous experience and one of the original directors, Mr Joseph Ray, lost his horse, dray and cream over the side of the deep bluff on the old Arapito Siding road. Mr Ray managed to jump clear but his horse, dray and cream fell into the deep river and were not recovered.

Further difficulties arose when the old Karamea bridge was destroyed by floods in 1913. It was not restored until eight years later. In this period all vehicles were taken across the river on a punt.

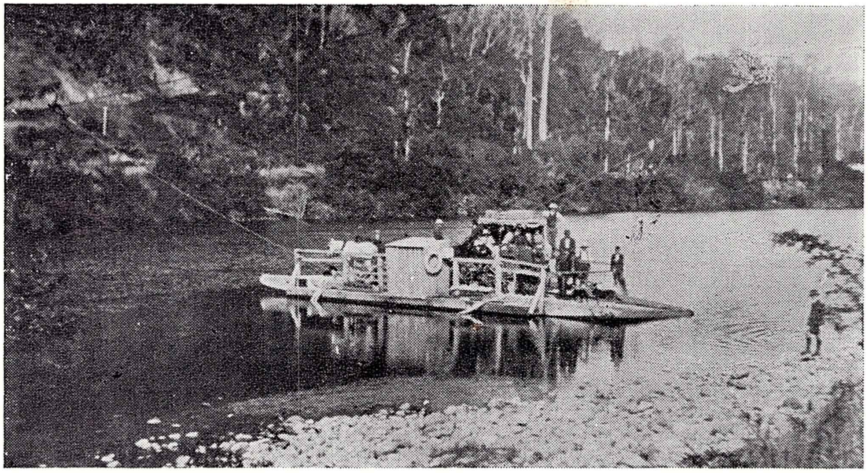
PROGRESSIVE

Despite its isolation Karamea believed in moving with the times and in 1916 shareholders with progressive ideas suggested that a motor truck be puchased for carting the cream to the factory. Partly because of World War One this question was shelved for a number of years but in 1921 a Republic lorry was bought.

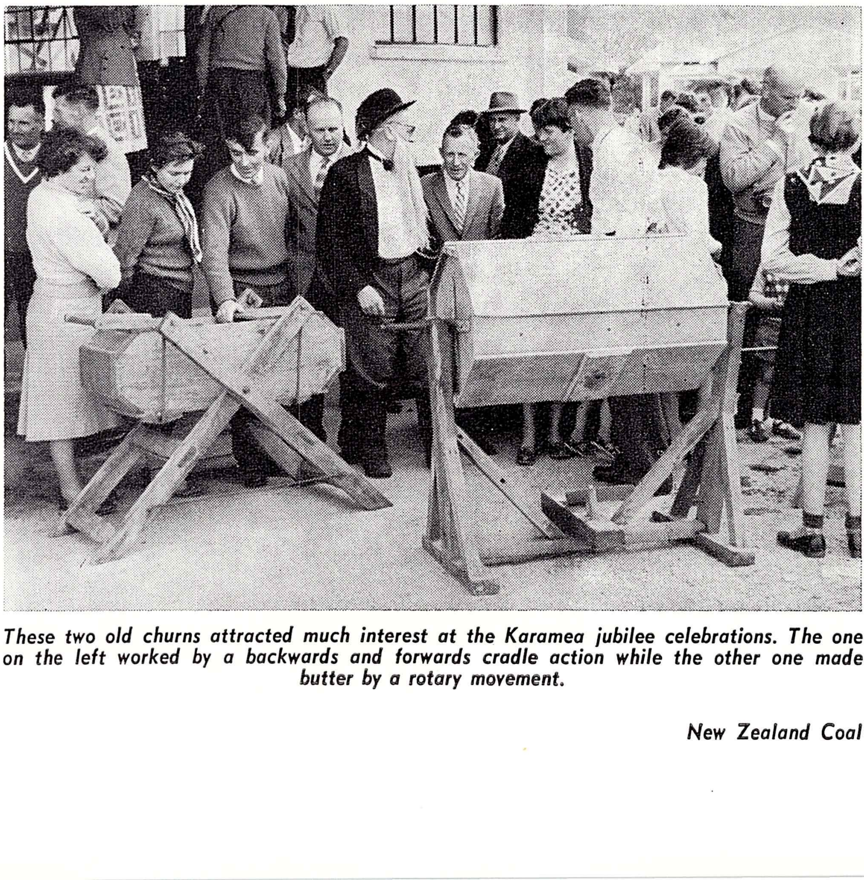
Despite its solid rubber tyres the lorry was the pride and joy of the district and having a ride on the vehicle was considered a rare treat. When the Republic proved too small it was replaced by a three-ton Leyland, which did noble duty until in 1927 the collection of cream was let



The s.s. Nile aground on the South Spit of the Karamea harbour.



After the Karamea Bridge was washed away in the 1913 flood until it was restored in 1921, this punt was the only means of crossing the river. This picture taken in 1917 shows a coach-load of people on their way to Mokihinui.



These two old churns attracted much interest at the Karamea jubilee celebrations. The one on the left worked by a backwards and forwards cradle action while the other one made butter by a rotary movement.

on a contract basis. This method is still used.

One of the main reasons for the failure of the early factories at Karamea was the difficulty of transporting the butter to outside markets.

When the present company commenced the only way of getting the butter to market was by the coastal steamer Mangapapa, which traded chiefly to Westport. As no shipping company was prepared to supply a replacement service when the Mangapapa was wrecked on the Karamea bar on October 10, 1917, the Dairy Company decided to charter the launch Whakaiti.

When the Whakaiti proved too small to handle the cargo offering it was decided to purchase the 20-ton steamer Nile, then laid up at Bluff. Bought in 1917, this 70 ft boat required considerable alteration and renovation, which cost £2628 before she was put into service. The purchase was financed by a levy of ½d lb butterfat from each supplier.

Although usually run at a loss each year the Nile played an important part in the progress of the company but in 1924 it was sold when the repairs ordered by the Marine Department made further operation uneconomic.

The Nile was replaced by the m.v. Fairburn in 1925 and this vessel carried on successfully until wrecked in the Buller River on March 3, 1936 after being driven ashore by a heavy squall.

The whole future of shipping transport from Karamea was wiped out by the severe earthquake which rocked the area on June 17, 1929. Silt from the shattered hills washed down the Karamea River and gradually silted up the harbour so that no ships could use it. The harbour became a mudflat at low tide.

For some years ships could enter the Little Wanganui River, which flows into the Karamea Bight, but this too silted up with debris from the effects of the earthquake and the Fairburn and its successor, the Te Aroha, could enter only at spring tides. If there was any delay in loading or unloading the ship was unable to leave until spring tides again enabled the vessels to cross the bar safely. Thus, it was uneconomic to attempt to bring the boats in.

Since the commencement of the 1937 season all butter has been sent to Westport by road and railed from there.

The production of butter increased year by year, and when the output for the 1935-36 season passed the 300-ton mark for the first time in the history of the company, it was decided to erect a new factory designed to handle up to 1000 tons of butter a year. This was opened in October 1936 and should cope with production demands for many years yet.

FORTUNATE

It is said that the quality of the butter produced by any factory depends largely on the ability of the manager, and Karamea has always been fortunate in this respect. During the 55 years' activity of the present company it has had 11 managers, the best known of whom was Mr Howard Hodgson, who filled this position from 1935 until his death in 1957.

Other managers who helped to make Karamea butter such a high-quality product were Messrs A. H. Jennings (1911-13), A. P. Kidd (1913-16), J. Rabe (1916-18), G. T. Vile (1918-21), R. W. Glentworth (1921-23), M. Williamson (1923-28), G. Lister (1928-31), A. Trumper (1931-35), J. Cook (1957-64). The present manager, Mr K. G. Crosby, took up his appointment in 1964.

The record of service of the chairmen of the company is easily headed by Mr Robert Tunnicliff, who is just completing his 40th year in this position. His predecessors in office were Messrs W. T. Gilbert (1911-12), C. Lineham (1912-15), H. C. Hawes (1915-19), J. W. Horrack (1919-22), G. Lineham (1922-24), and V. R. Farrow (1924-26).

Over the past half-century the Karamea Co-operative Dairy Company has steadily increased its production and maintained the high standard of its butter. It is a happy thought that coal is directly associated with this progress and quality control.

A FAMILIAR SIGHT

These five donkeys, ever ready to investigate the unusual, are a familiar sight to motorists using the Karamea-Westport road.

High-pressure hot water will be piped from the boiler house through underground concrete tunnels, one of which is shown here under construction.

Coal the source of heating in new Massey University

COAL WILL BE THE MAIN SOURCE OF POWER FOR HEATING AND HOT WATER AT THE NEW MULTI-MILLION POUND MASSEY UNIVERSITY, PALMERSTON NORTH.

Requirements in the early stages will be about 2000 to 3000 tons a year, rising probably to 6000 to 8000 tons long term, depending on the ultimate development of the university.

The continuing substantial expansion of the university necessitated planning a comprehensive high-pressure water-heating scheme, using coal-fired boilers, to serve present and future devlopments.

Before planning this the Mechanical and Electrical Engineering Division of the Ministry of Works extensively studied modern engineering techniques in the high-pressure hot-water field in Europe, Britain and the United States.

Already completed at the university are Colombo Hall (student accommodation), and an interim biology and lecture theatre block. The arts faculty library is under construction and the first stage of the veterinary school well advanced. The contract for the boilerhouse for the heating system was let in September 1966 and work is under way.

Tenders have been accepted for the Students' Union building and for the science block. The second stage of the veterinary school and two buildings — agricultural engineering and the horticulture faculty — have

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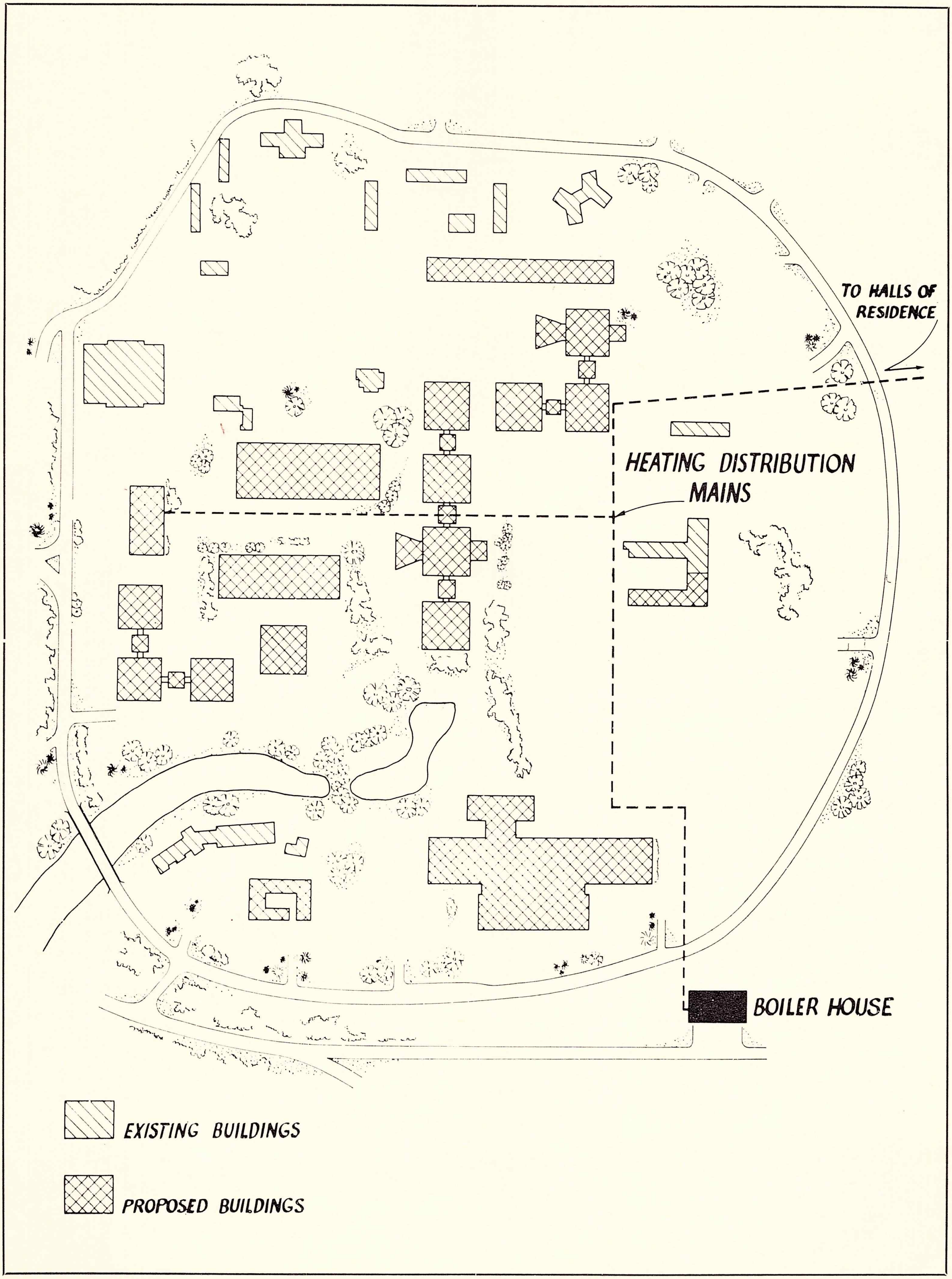

An overall view of the Massey University project.

been designed and plans drawn for an administration building.

The Palmerston North City Council has raised £90,000 by loan for a students' hostel and this will carry a Government subsidy of up to £1400 a place.

The buildings under construction or already designed preliminary to the calling of tenders indicate the demands that will eventually be made on the coal-fired heating system. Associated with current building is considerable roading construction and planning.

Two factors influenced the Mechanical and Electrical Engineering Division in its appraisal of the high-pressure hot-water heating scheme.

First, coal was a prime consideration, being an indigenous fuel. The basic idea of a central boilerhouse instead of several smaller ones meant full mechanical handling of coal and ash would be economically justified and a chimney high enough to overcome air pollution problems could be provided.

Secondly, because buildings on the campus would mainly be large and would ultimately be spread over a big area, a high-pressure hot-water heating system would be economically sound.

High-pressure hot water under pressure can be raised to a high temperature without boiling. For example, the maximum pressure in the distribution mains at Massey will be 200 lb per square inch at a maximum flow temperature of 340 degrees Fahrenheit. Temperature differences can be substantial between the flow and return main, thus increasing the distribution capacity of the system.

45 MILLION B.T.Us

The boilerhouse at Massey will house three 15 million b.t.u. hour boilers. Two will be installed at first and space is being provided for a third. More boilers can be conveniently provided to cope with expansion.

The high-pressure hot water will be piped in underground concrete tunnels along the main lines and connected to the buildings in smaller concrete ducts. Construction of tunnels and ducts is well advanced.

The main pipes from the boilerhouse will be 8 in. diameter steel. In the other sections, the pipes will be sized to suit.

Substantial pipe anchors will be provided and stainless steel bellows incorporated in the pipeline to cope with thermal expansion. All pipes will be insulated and wrapped.

A calorifier system will be used at the heating plant rooms in each major building to exchange heat from the external high-pressure hot-water system to the internal low-pressure heating and domestic hot-water systems.

The boilers are the La Mont water-tube type rated at a maximum of 215 lb pressure per square inch and a maximum controlled water temperature of 340 degrees Fahrenheit.

The temperature difference between flow and return has been designed at 100 degrees Fahrenheit.

The stokers will be of the spreader type with dumping grates.

Coal will be delivered by motor truck from railhead at Milson and dumped direct into concrete bunkers. There will be one bunker holding 70 tons of coal to each boiler.

Ash will be collected from the boilers by a vacuum system and discharged into a storage bin. The dry ash will be passed through a conditioner where it will be mixed with

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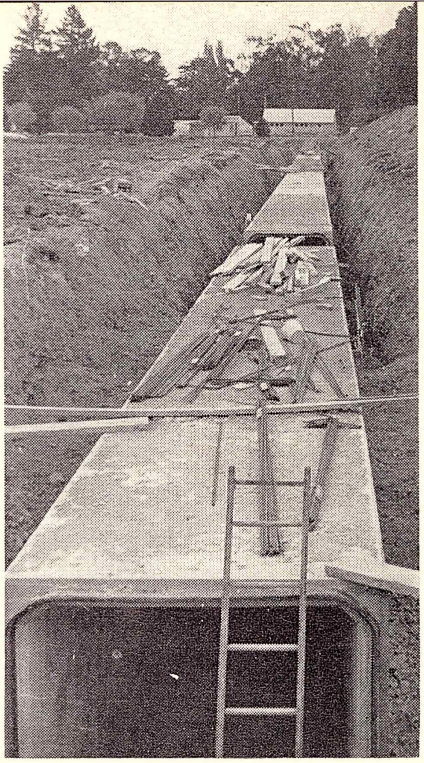
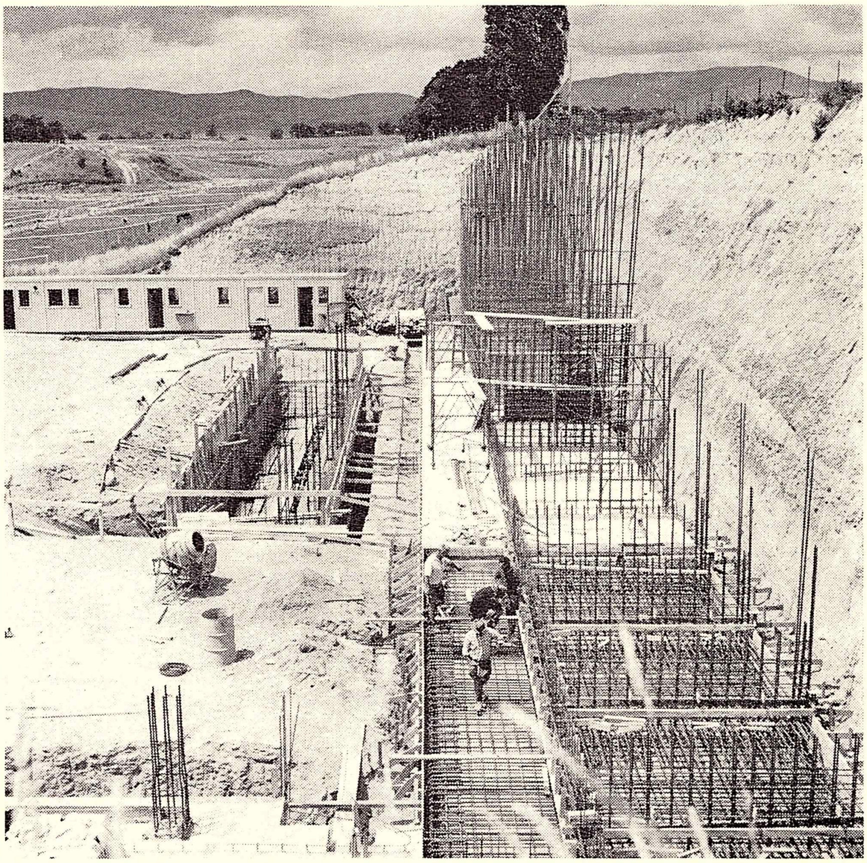


An almost complete section of one of the tunnels. These tunnels will carry 8 in. diameter steel pipes along the main lines from which the water will be connected to the university buildings in smaller concrete ducts.



This photograph shows progress on the boiler house at Massey University. This building will house three 15-million B.t.u./hour boilers, with room for more, for the coal-fired heating and hot-water system designed by the Mechanical and Electrical Engineering Division, Ministry of Works.

Mr G. R. Murray

RETIRING BRANCH MANAGER HAS SEEN "TERRIFIC" CHANGES

On retiring as Auckland manager of the Mines Department, Mr G. R. (Ray) Murray looks back on a lifetime spent in association with the coal-mining industry. He has seen its ups and downs, but at a time when he says goodbye to old associations and old associates he retains the unquenchable enthusiasm of a man who might be starting instead of ending a sound career in the department.

Regrets? Only one; that coal, New Zealand's great indigenous fuel, which pioneered its heat, light and power systems, and was vital to the development of its land and sea transport, is not in some quarters esteemed as it should be — as still the best and most economic in all the circumstances facing the country.

Instead of looking back on the famous days of coal, Mr Murray implicity believes that a still young and vigorous nation should be looking forward to arresting the fuel's unwarranted decline and strenuously seeking to strengthen its potential in industry and to find new techniques and new scope for its use.

IN THE BLOOD

Coal is in his blood. He was born on the West Coast coalfields. Some of those who perished in the recent Strongman explosion were at school with him. Three relatives luckily were in another section of the mine.

The first 11 years of his working life were spent in the Dunollie office of the department before he went to Christchurch as chief clerk in 1938. After war service, he went to head office in 1946 and late in the same year was transferred as branch manager to Auckland, where he has been since.

Today, the Waikato coalfields are as well known to him as the West Coast fields of his youth.

What changes has Mr Murray seen in the industry? "Terrific changes in administration and sales," he replies. From 1945 on, he saw the gradual transfer of the private mines to the State. Sadly, he has seen the decline in the use of coal, especially by large industrial firms, and from the national viewpoint he cannot see wisdom in spending precious overseas funds, particularly in the existing state of the economy, on bringing to New Zealand ever-increasing quantities of imported fuels, when we have this highly efficient native fuel inadequately exploited.

After 40 years (except for war service) at the heart of things, he is emphatic that coal still has a very bright future if allowed to go forward on its merits. He will not elaborate on that. One sensed that as a good departmental officer, he felt it was not for him to labour his personal opinions on policies, public or private.

Mr Murray would sooner talk about the great men he has known in the industry — outstanding administrators such as Messrs I. A. James, C. J. Strongman, C. H. Benney, P. M. Outhwaite and others He counts himself fortunate to have served under such leaders, good mining men, unsparing in their guidance of and help to new officers.

Runanga he knew intimately for the first 27 years of his life. Of the miners, he says simply: "I understand them and their outlook. I am proud to have been associated with so many of them."

For the past 20 years he has worked on developing the sales side. He was a Government director for 18 years of the Waikato Carbonisation Co. Ltd, and for many years an executive member of the North Island Coal Merchants Association, of which he has been vice-president.

A keen follower of outdoor sport, one of his finest memories is that of acting as masseur to the Kiwi rugby team for a period after the war. As a youth in a mining village, he

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Mr N. Brown

FUEL ENGINEER RETIRES

Looking forward with his wife to a well-earned trip overseas is Mr Norman D. Brown, who is retiring as a fuel engineer with the Mines Department. He has enjoyed his years in three Government departments.

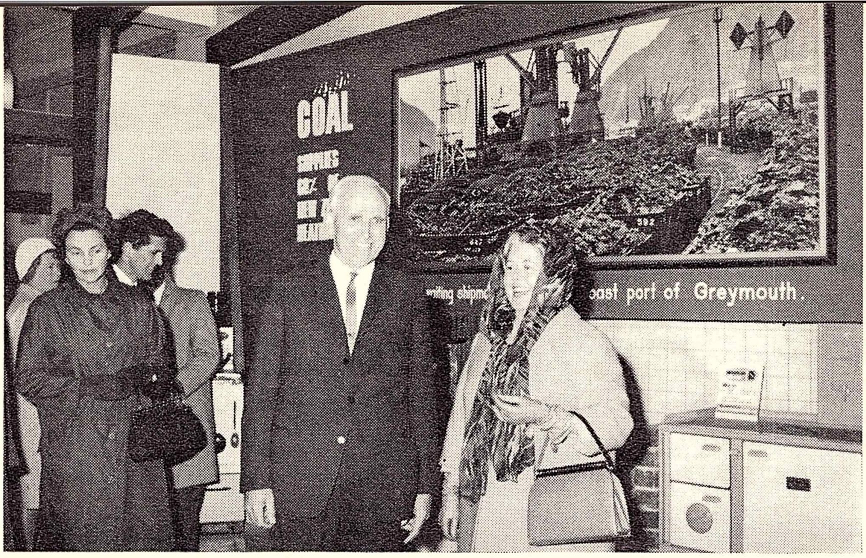
Versatility has been the keynote of Mr Brown's long engineering career, both with the Union Steam Ship Co. and Government departments.

As an engineer on the Pacific mail steamer Aorangi, he "swallowed the anchor" towards the end of the Second World War, when he joined the staff of the dehydration factory at Auckland, then run by the Internal Marketing Division.

The factory's main work was dehydrating and canning foodstuffs for the American forces in the Pacific. Mr Brown still recalls hearing of the awe of the Americans at the super-sized peas Pukekohe growers produced for the fighting men in the Pacific. "It really shattered them." The factory produced just about everything from sauerkraut to tomato pulp.

In 1952 Mr Brown was transferred to Ministry of Works as mechanical overseer at Auckland, where he

(concluded on page 34)



WON ADMIRATION

During her visit to Wellington, Mrs Holt, wife of the Prime Minister of Australia, visited the New Zealand Display Centre. Escorted by Mr A. S. Cornish, chairman of the Centre, Mrs Holt thoroughly inspected the Coal display and expressed admiration for a number of the appliances.

ANOTHER FIRST FOR COAL

The State Coal Mines entry depicting a modern heating unit won the decorated float award at a recent carnival organised by the Huntly Jaycees.

(Photo by Denis Organ)

AUCKLAND DISPLAY

The Coal exhibit in the Auckland Display Centre attracts many interested visitors.

MASSEY COLLEGE HEATING

(concluded from page 30)

water and discharged as semi-dry, dust-free slurry before being removed by motor truck.

Auxiliary equipment — circulating pumps, air compressors, water-treatment equipment, pressurisation plant and a diesel-electric standby set — will be installed in a separate part of the boilerhouse.

SPECIAL FEATURES

Most of this equipment is conventional, but the pressurisation plant has special features. To maintain a continuous high pressure on the hot-water system a tank is kept normally half-full of water under a pressure-controlled cushion of nitrogen gas supplied from bottles.

A separate atmospheric spill tank will be provided to hold excess hot water discharged from the system because of expansion due to an overall temperature increase in the high-pressure hot water. A small pump will transfer the spill back into the high-pressure system when the overall temperature decreases.

A 150-ft-high reinforced concrete brick-lined chimney will be built alongside the boilerhouse. A stainless steel conical cap will, in the initial stages, be fitted at the top of the chimney to increase the vertical velocity of the chimney gases.

Probably 60 percent of the equipment will be supplied locally and the rest will come from Australia and Britain. The scheme should be completed early in 1968.

COAL SHOUTS

Late last year Christchurch's Shirley Lodge Hotel saw a Christmas party with a difference. Instead of the whispered, timorous requests in Santa's ear, the fruit salad and ice cream, the balloons and the Christmas tree, the focus of attention was coal.

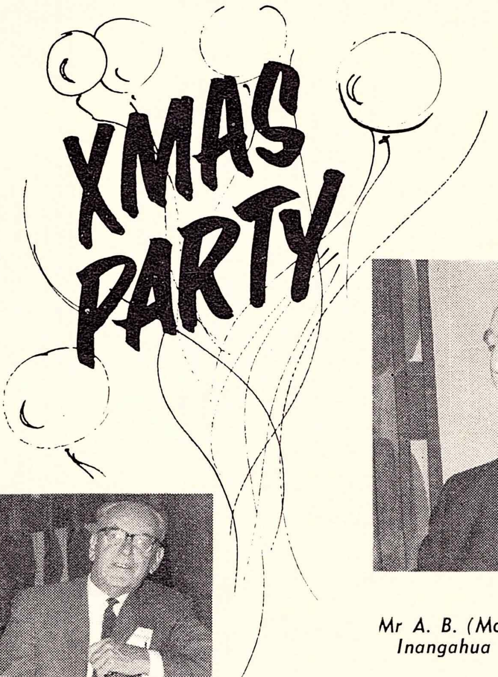
Every one of the 150 guests had something to do with coal, from its mining to its eventual burning.

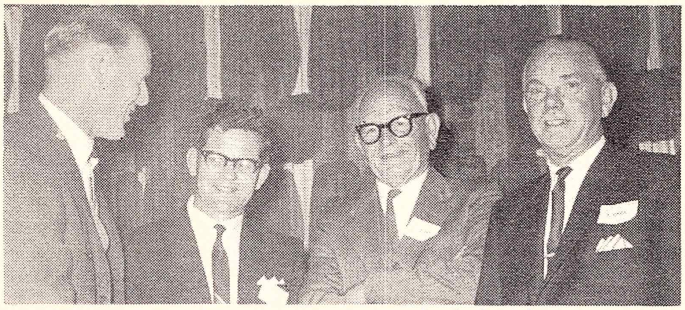
This was the fifth, and voted so far the best, annual Christmas get-together of representatives of the South Island's privately-owned mining concerns, sponsored and arranged by the city mining and merchanting complex of Thomas Brown Ltd.

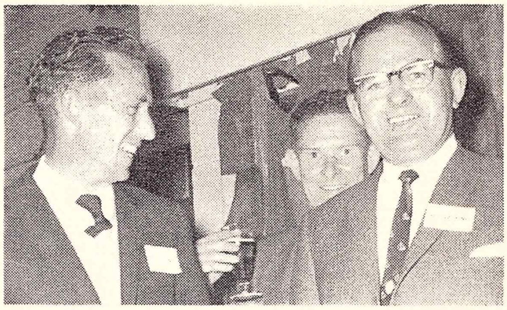
Many of the guests were "underground" men from the mines of the Reefton and Grey areas and representatives of the consumers — freezing companies, distributors, hospital boards, gas companies, local bodies, engineering firms — were there.

(See photos on opposite page.)

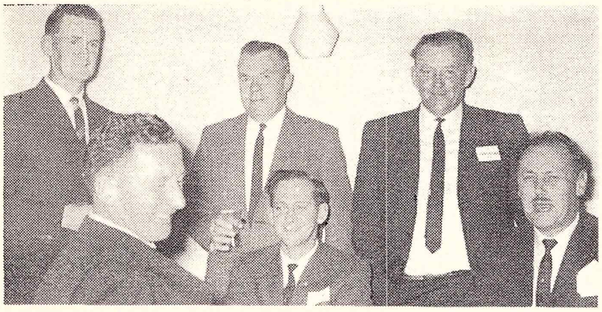
XMAS PARTY



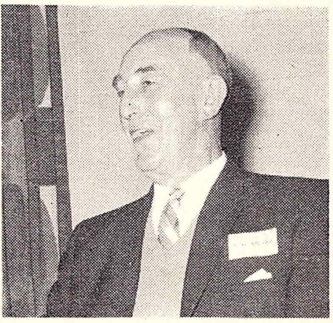




From left to right: Messrs G. Hallaran (Reefton), L. Johnson (Ilam), A. Henry (C.F.M.), L. Uren (A. Wander Ltd.). Top right: C. Thornhill (Firestone), R. McKenzie (Reefton), N. Pickering (Atlas Rubber).

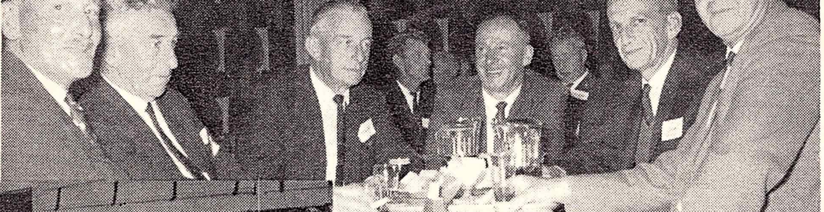


W. Watkins (N.Z.R.), K. Muir (Ashburton), E. Lange (Thos. Brown Ltd.), S. Richard (Ashburton Hospital), F. Hallaran (Reefton), K. Beale (Ashburton Hospital).



Mr A. B. (Moke) Archer, President, Inangahua Mine Owners' Assn.

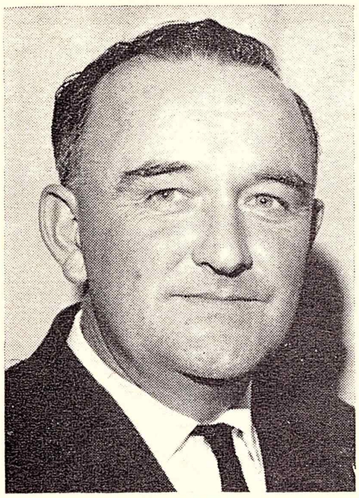
(Above): C. M. Johnson (President, Canterbury Coal Merchants' Assn.), H. Morrison (Timaru), A. Lazarus (State Coal), T. Forrester (Timaru).



(Above): C. Croucher (Thos. Borthwick & Son), J. Fogarty, E. Hillier, M. Finch (Canterbury Frozen Meat Co.), L. Dennis, D. Richards (Thos. Borthwick & Son).

Above): P. McGuire (Christchurch), W. Williamson, G. Teasdale (Boott & Party), A. Howell, J. Craddock, N. Pickering, J. Colvin, J. Eggers (Skellerup Industries), J. Wright (Bootes).

(Right): K. Staples, N. Voyce (Firestone Tyre Co.), J. Hambley, D. Campbell (Bellvue Coal Co.), T. De Michiel (Alpine Coal Co.), J. Caldana (Bellvut Coal Co.).



Mr D. Knox

NEW FUEL ENGINEER AT AUCKLAND

A new member of the fuel engineering staff at the Mines Department, Auckland, is Mr D. T. Knox, for the past 12 years in charge of the fuel technology group in the Auckland Industrial Development of the D.S.I.R.

Educated at Hastings High School and Auckland University, Mr Knox, after a period in the R.N.Z.A.F., joined the division on its inception in 1945.

In his work for the fuel group, he was the division's representative on the coal technology panel, which is a co-ordinating committee for coal research, primarily for finding the best possible methods of using New Zealand coal.

He has been a member of the Auckland air pollution research committee for some years and has also been technical officer, and served on the council of the Auckland fuel users' research group. The group's chief aim is to increase the knowledge of people engaged in or likely to be engaged in this field by holding regular group discussions on problems met by them in their particular works or factory.

The whole outlook for heat engineering has much improved since this work started, Mr Knox says. There was now a greater awareness of the problems associated with the burning of New Zealand coals and the means of getting over those problems.

Coal, Mr Knox feels, has a very long future, but whether it will continue to be used as it is now is another question.

"The development of thermal power must improve the outlook for coal," says Mr Knox. "I think also it has a big future as a raw material in industry, particularly as population and the demand for process chemicals increase."

Mr Knox has recently been admitted to full membership of the Institute of Fuel.

MR MURRAY

(continued from page 31)

learned first aid and when transferred from the tanks to medical first aid during the last 12 months of the Second World War, he put his knowledge to good use.

Charlie Saxton's team he regards as just the best for team spirit, co-operation and a happy frame of mind. He puts that happy combination of rugby virtues down to their army training. "They knitted well round Saxton's motto of 'pace, possession, position'," he says. In Auckland, Mr Murray is still a strong supporter of rugby league, the game of his youth.

Asked about the future, Mr Murray says laconically: "Nothing in view; just retiring."

But it would be surprising if his youthful, aggressive outlook and his experience did not lead him into some other avenue of activity. New Zealand can ill afford to lose men of his capacity.

Mr Murray's successor is Mr Brian Bergin, distribution manager, Huntly.

MR BROWN

(continued from page 31)

remained till his retirement from that department in 1964.

Next year he came out of retirement to relieve for a few weeks at the Mines Department, but the few weeks grew into 18 months, until now he is able to fulfil a long-cherished wish to take his wife and himself to see Britain and Europe.

Mr Brown is a strong believer in what can be done to popularise the use of coal by cleanliness and modern equipment, but prefers to leave any comment on this subject to men who, he says, are much better qualified to express opinions.

Mr Brown is president of the New Zealand Institute of Marine and Power Engineers, an office that keeps him in touch with his profession and fellow engineers.

RETIREMENTS

The following retirements have been announced since the last issue of "Coal". The number of years of service is given in parentheses:

Messrs R. F. Virtue, Dunollie (46); J. C. C. Ladner, Reefton (45); W. Rendall, Kaitangata (43); W. Forsyth, Westport (40); J. Hedley, Huntly (40); J. Barlow, Rotowaro (36); J. R. Crackett, Ngaruawahia (33); H. M. Broomhall, Huntly (32); J. T. Lloyd, Nightcaps (32); J. T. Mumm, Mokihinui (31); F. J. Neilsen, Westport (31); H. D. McL. Cairns, Ohura (30); R. Wright, Christchurch (30); J. A. Jones, Glen Afton (30); C. H. Newcombe, Reefton (28); M. D. Finan, Auckland (26); S. Farrar, Huntly (23); T. E. Bower, Ohai (21); R. C. Champman, Te Kuiti (20); I. Joseph, Nightcaps (16); A. J. Peart, Invercargill (17); E. G. Hamerton, Huntly (12).

OBITUARIES

We regret to record the following deaths and extend sympathy to relatives: Messrs W. Anderson, Kaitangata (39 years of service); C. H. Forrest, Kaitangata (31); R. Thomson, Huntly (29); J. T. Gibbs, Cobden (12).

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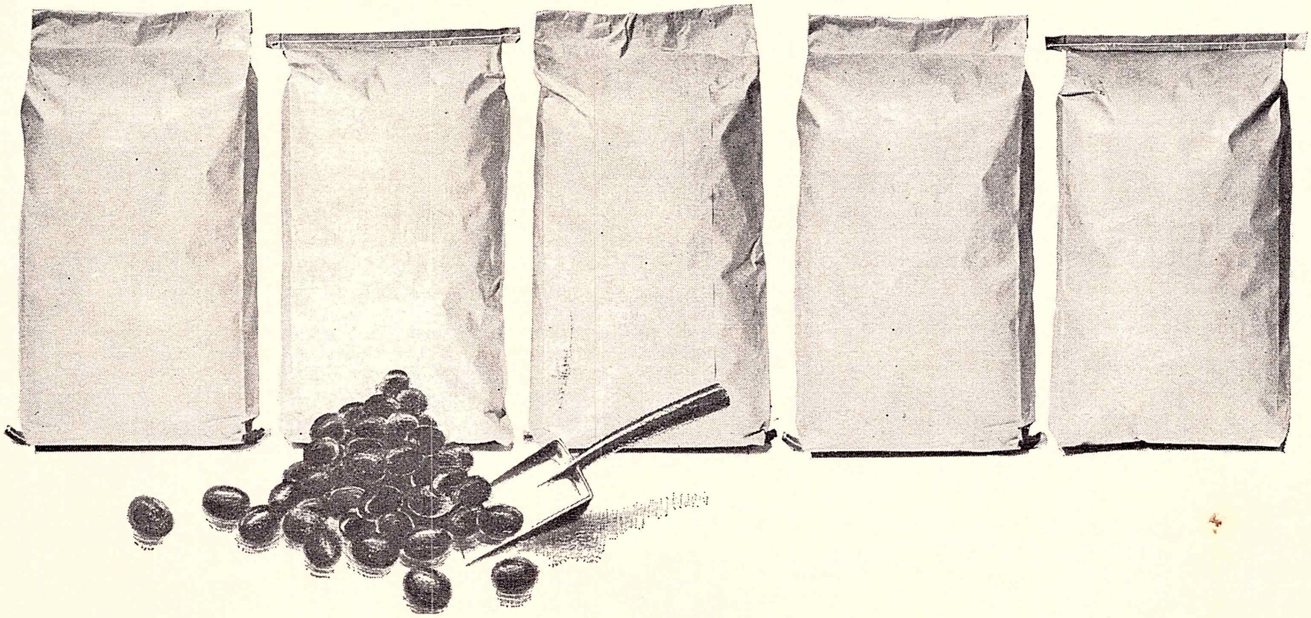
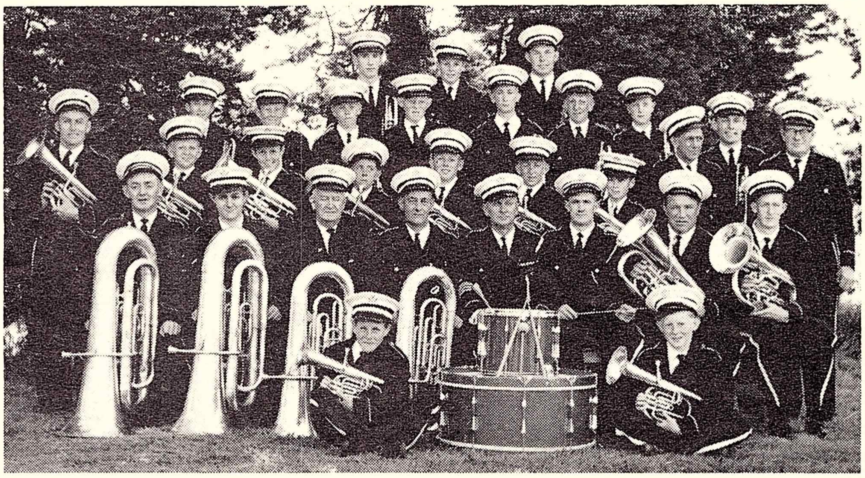




The 1966 Waimangaroa Silver Band. Back row: R. Beveridge, A. Collins, D. J. Neighbours. Third row: D. Robertson, A. Shanks, J. Hawes, S. Kerr, R. Robertson, D. Collins, R. Stephens, G. Scrimgeor, P. F. Robertson, R. Anderson Snr. Second row: F. Robertson, B. Eckersley, B. Lightbown, W. Hawes, R. Eckersley, K. Collins, A. Robertson. First row: J. Eckersley, J. Kerr Junr., H. Fayen, J. Queripel, D. Fraser, B. G. Anderson, F. Neighbours, R. J. Anderson. Front: P. Robertson, R. Kerr. H. Fayen also played in the 1918 band.

SOUNDS OF MUSIC AT WAIMANGAROA

When Denniston and Waimangaroa had a large population they supported three bands, the Denniston Brass Band, Burnett's Face Brass Band and Waimangaroa Brass Band, but they went into recess for want of players. In 1964 a few bandsmen got together and decided to re-form the Waimangaroa Band, using the resources of the old bands. Waimangaroa Silver Band is now over 30 strong and has a waiting list of boys wanting to join.

The 1918 Waimangaroa Brass Band which won that year's West Coast contest with "Bohemian Girl". Back row, left to right): J. Neighbours, A. Walker, H. Neighbours, H. King, H. Fayen, D. Garing, S. Neighbours, W. Friend. Middle row: T. Collins, F. Hayes, G. Sowerby, T. Mulligan, R. Bottom, W. Staines. Sitting: E. Smart, A. Neighbours, L. Neighbours, R. Wyke (conductor), R. Lowe, L. King, J. Young. In front: L. Neighbours, R. Hawes. H. Fayen still plays and is in the 1966 band.

In the late 1890s a drum and fife band was formed and eventually from this grew the Waimangaroa Brass Band. The first conductor was H. Coop, the local stationmaster, and on his transfer the band was taken over in 1904 by L. Neighbours, who held the position until 1918, when Dick Wyke took over. The band was later taken over by Tom Neighbours.

The band was very fortunate in having the services of such able players as the Neighbours Bros (Jack, B-flat bass; Len, soprano; Sid, cornet and trombone; Arthur, cornet; and Tom, trombone), Bob Lowe, cornet; Bill Staines, euphonium; and also Jim Young, of "Butler Memoirs" fame.

Mr George Lester started his band career with the band in 1909 and later became conductor of the Levin Brass Band and played the soprano cornet with the present band in 1965 at the age of 74.

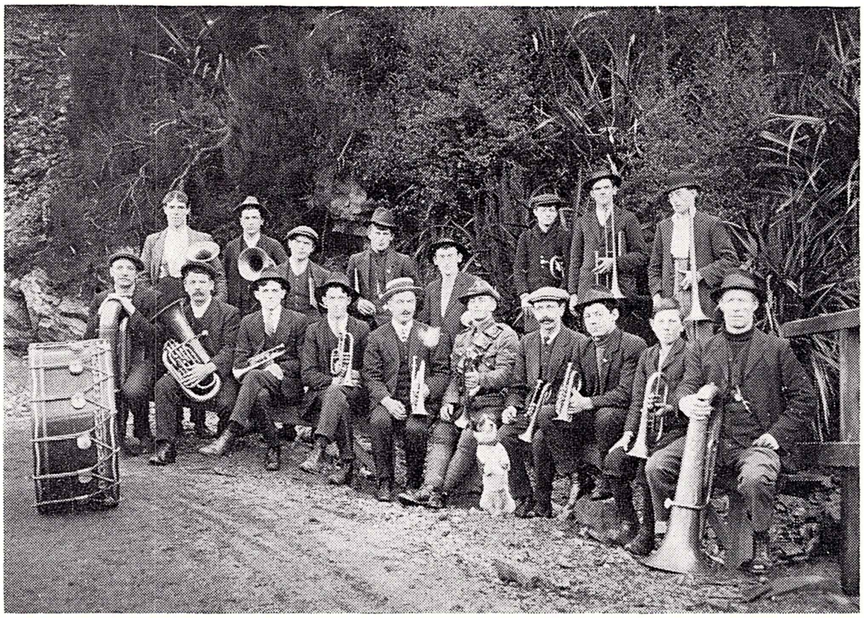
The activities of the band were cut short in 1935 when a bush fire swept through the township, destroying the band room and large number of the instruments.

As most of the other prominent bandsmen had left the district the band went into recess.

Happy to relate the band was reformed in 1964 as the Waimangaroa Silver Band under the able conductorship of Brian Anderson and using the instruments of the old Denniston Band. Since it re-formed the band has purchased a bandroom and uniforms. In 1965 the band attended the West Coast championships at Hokitika and in 1966 the contest at Motueka, gaining second place in the street march.

The band is in keen demand all over the district and is very fortunate to have the support of the whole township.

Special mention must be made of Herman Fayen, who was playing in the band before the First World War and until recently was still helping out in the band. Mr Fayen was recently honoured by being made a life member of the band.



Burnett's Face Brass Band, 1915. Back row: Bill Green, Alex Stephens, Jack Stephens, Snow Hodgetts, Dick Hodgetts, Jim Longmuir, Bill Ruston, Jim Collinson. Front row: George Woodward, Jack Drury, Frank Mitchell, Vic Stephens, Sandy Young (conductor), Dingle Young, Marshall Bolt, Jock Longmuir, —— Kerr, Earl Marr, Bob Meadows.

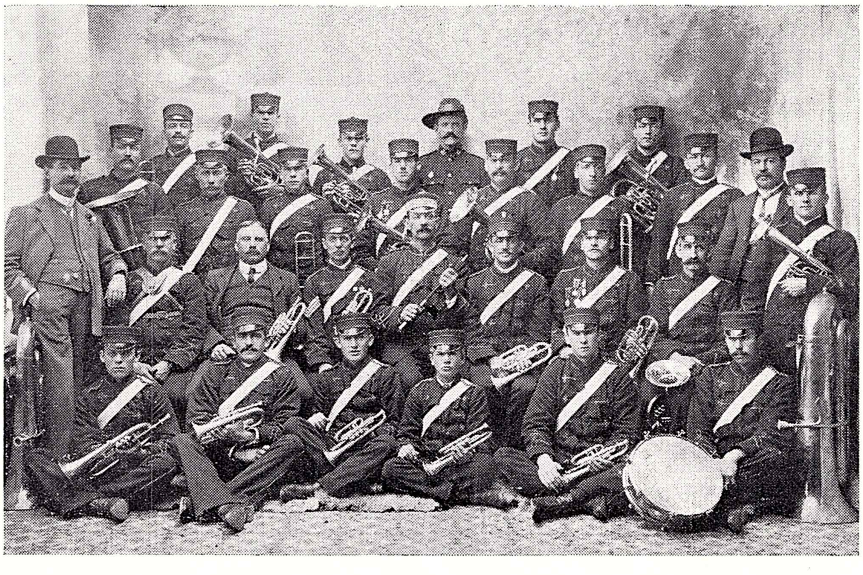
DENNISTON BRASS BAND

The brass band at Denniston was first formed in 1882 by a group of miners. They received financial help from the Westport Coal Company and the instruments were ordered from Dunedin. The first conductor was Bob Campbell, a miner, who because he was the only bandsman on the "Hill" was appointed to get the band started. In 1888 the band won the first contest on the West Coast and until the turn of the century was the leading band.

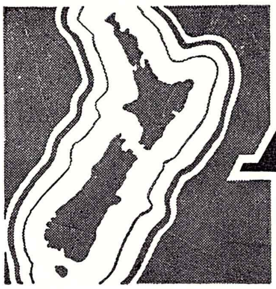
The first West Coast contest was held on Martin's Island and the bandsmen and their supporters were ferried across the river. The results were Denniston first, Brunner second, Black's Point third, and Westport fourth.

Denniston band was successful for a number of years and produced some outstanding players, one of the best known being Jimmy Cummings, who won the base trombone solo six times between 1922 and 1933. Another New Zealand champion from the band was Bill Cooper, who won the soprano cornet championship. Others who played for the Denniston Band were the Neighbours brothers, of Waimangaroa, who between them held five New Zealand solo titles, and Bill Staines, recognised as one of New Zealand's first euphonium players. Staines, along with W. Hopkinson (flugel horn), represented the Denniston Band in the Hinemoa Band, which in 1903 was the first New Zealand band to tour Britain.

The brass band went into recess for a number of years, but was revived about 1945 with George Cummings as conductor. This band did quite well for several years, but as the population of the Hill declined, it went into recess.



Denniston Brass Band—winners of the test piece and second in the quickstep at Nelson carnival, 1906. Back row: A. Young, H. Coppersmith, W. Humphries, A. Bottom (drum major), J. Cook, J. F. Cumming. Second row: C. Bartholomew, T. Ford, John Cumming, G. Watt, W. Ralph, Jas. Cumming, T. Moye, Mr Stevens. Third row: Mr McMaster, W. Cumming (drummer and secretary), F. Hopkinson, A. Barket, W. Cooper (conductor), W. Ford, A. McMaster, A. Price, J. Moye. Front row, sitting: A. Mateer, R. Bottom, F. Power, W. Cumming Junr., J. McDonald, A. Croy.



District News

– ROTOWARO –

The Rotowaro Play Centre raised £55 towards its building fund at the Fancy Dress Ball on December 3.

Lucky dips, quick raffles, stalls and free ice cream to all children were highlights. The stage was beautifully decorated by Mrs Alex.

The judges, Mesdames Adamson, Black and Osborne, had difficulty picking the winners. They were:

Under five years: Best girl, Marie Taylor ("Bride"); best pair, Michael Brazil and Sheree Hogan ("Father Christmas and Tree").

Under eight years: Best girl, Sheril Smith ("Fairy"); best boy, Adrian Bennett ("Clown"); best pair, John Hunter and Wayne Finn ("Hobos").

Eight years and over: Best girl, Teresa Johnson ("Sea Sick)"; best boy, Steven Learmonth ("Pieman"); best pair, Yvonne Allen ("Salome") and Kay Peattie ("Early Victorian").

Most original: Catherine Young ("Miss New Zealand").

Donated prizes for the tiny tot section: Girl, Josie McCallum ("Pebbles Flintstone"); boy, Steven Whyte ("Priest").

Christmas cake raffle: Winner, Raewyne Rodgers. 70lb bag sugar, drawn Rotowaro P.O., December 7: Winner, B. Rodgers, Rotowaro.

On behalf of the president, Mrs Jan Brazil, and parents of the play centre, thanks are extended to all who helped to make the evening a success. The Christmas party on December 7 for the centre's 40 children completed a most rewarding year.

BEAUTY CONTEST

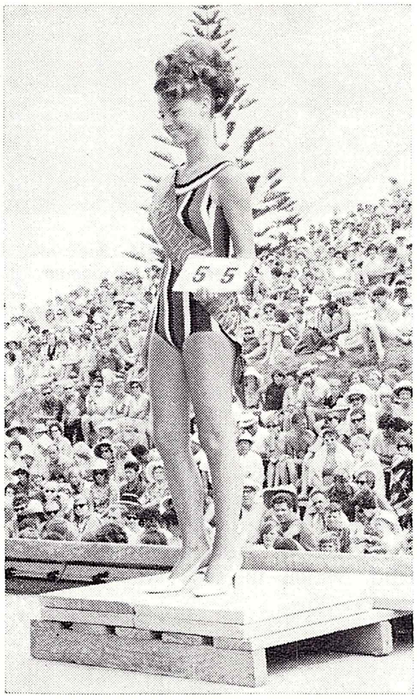
"Coal" magazine congratulates Miss Marilyn Mitchell, of Huntly, winner of the beauty contest at Mercury Bay at Christmas. Marilyn works in the State Coal Mines Office in Huntly.

PROMOTION

Mr B. Bergin, popular member of the staff at Huntly, has been transferred to Auckland as branch manager to succeed Mr Ray Murray, who retires in March.

OFFICE PARTY

The staff at Huntly held a Christmas party on December 16, and it was well attended by staff from all mines. Mr Adamson, the district manager, welcomed all present and said he hoped this party would be the forerunner of many more, as he liked to see the staff get together at least once a year.



Miss Marilyn Mitchell, of the Mines Office in Huntly, who won the Mercury Bay beauty contest.

RETIREMENT

Miss B. Watson ("Bessie" as she is known to all who have worked in the mining industry) retired from the State Coal Mines Office, Rotowaro, on December 23, after nearly 42 years' service.

She started work for the Taupiri coal mines in 1925 and continued working for the Government when it took over the mines in 1950.

She was a popular member of the Rotowaro staff and, with her retirement, an era has ended, for her late father and brother were both prominent in mining circles for many years in Australia and New Zealand.

At a presentation in the Rotowaro Hall, many tributes were paid to her from all sections of the mining community. Mr Adamson, the district manager for the Huntly district, in making the presentation to her on behalf of the staff and the Miners' Unions, wished her a long and happy retirement.

– OHAI –

Congratulations go to Jack Crook (rescue station officer) who recently passed his 1st class Mine Manager's Certificate and to Miss Janice Blair of our pay staff on her marriage to Tom Hollands, a trucker at the Wairaki Mine.

Presentations were made to Eddie Coggan and Neville Hay, before they left Ohai. Eddie, from the office staff, has transferred to the New Zealand Forest Service at Hanmer Springs, and Neville, from the survey staff, has returned with his family to the Greymouth district.

A newcomer to the clerical staff is Kenneth Stevens, of Nightcaps.

GENERAL

Tenders have been called for the stripping of about 1,800,000 cubic yards of overburden at No. 6 Opencast. The seam to be uncovered has already been partly worked underground.

Mr Len Boyer, JP, of the Morley lamp cabin, has been appointed District Coroner.

Work has started on the much-needed new ambulance station. To be built of concrete blocks the station will provide a garage and first-aid room. It is being built in the section of the Mines Rescue Station.

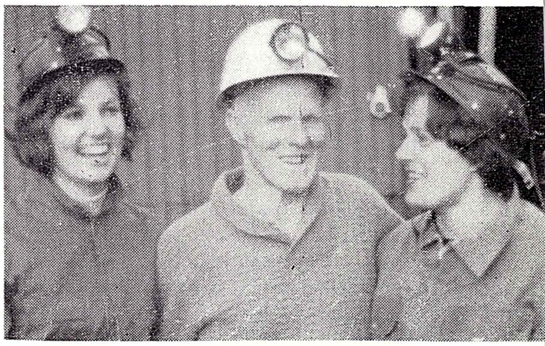
During the visit of a circus to Nightcaps, an elephant race was held in the main street. A large crowd watched Don Forde outride his fellow jockeys, Peter Wilding and Robert Cochrane. Proceeds went to the Nightcaps Volunteer Fire Brigade.

Three dump trucks, the largest of their kind to arrive in New Zealand, have been delivered to the opencast mines at Ohai. The Euclid trucks measure more than 12½ ft to the top of the cab, weigh over 20 tons and can carry a load of up to 26 tons. The trucks are 28 ft long and are powered by 12 cylinder 370 h.p. engines.

STRONGMAN DISASTER

A public appeal has been opened at Nightcaps and each union member levied to aid the Strongman mine fund.

All of us express our deepest sympathy to those who have lost relatives and friends in the explosion.



MISS N.Z. VISITS DOBSON

Dobson underviewer Mr F. W. J. Munden was on hand with his camera to snap Miss New Zealand (Miss Heather Gettings), Mr A. E. Pickering and chaperone Mrs Short on their visit down the Dobson mine.

– BULLER –

TV reception from the transmitter on Mount Augustus above the Webb mine is very good in Westport, Waimangaroa, Denniston and Mokihinui and by the time "Coal" is on sale we hope to have it at Granity, Ngakawau, Hector, Reefton and Karamea.

Father Christmas visited Granity and Ngakawau play centres. After spending some time with the children he distributed presents from the Christmas trees.

Births :

Betty and Fred McDonald, a daughter; Zelma and Arnold Straker, a daughter; Phoenie and Clive Aldridge, a daughter.

Weddings :

Marjorie Halliday to Peter McKenzie; Sylvia De Malmanche to Akie Murray; Mary Lockhead to Trevor Shearer; Marjorie Beveridge to Ron Sparks.

Engagements :

Ann Queripel to Robert Lamplough; Marie Kerry to James Cummings; Ann McManus to Ike Blair; Verna Watt to Ron Humphries; Heather Humphries to James Easton; Pamela Allan to Michael Harwood; Gladys Knight to Arthur Tyler.

Deaths :

Mrs Douglas, formerly of Millerton; Mr McClory, of Granity; Andy Peggie, Millerton; Danny Tollan, of Granity.

Gloom was cast over the mining townships on Thursday, January 19 after the explosion in the Strongman mine. We extend our sympathy to the families of the victims.

GUIDE ACTIVITIES AT GRANITY

A busy year ended with the presentation of the Queen's Guide Badge to Cherrie Hansen at an evening in the Lyric Theatre, at Granity.

Cherrie is a keen swimmer and lifesafer, has a life-saving medal and cross and handles a dinghy well. She hopes to join the sea rangers on her 16th birthday in April. Cherrie qualified to attend the Tongariro National Park adventure camp at which 300 or more guides from all over the world met for skiing, riding, swimming, hiking and many other outdoor activities. Arrangements for travel and meals were made by guide headquarters. A guide must be keen and hard working and attend all guide meetings to attain these privileges. Cherrie has never missed one meeting in nine years as a brownie and guide.

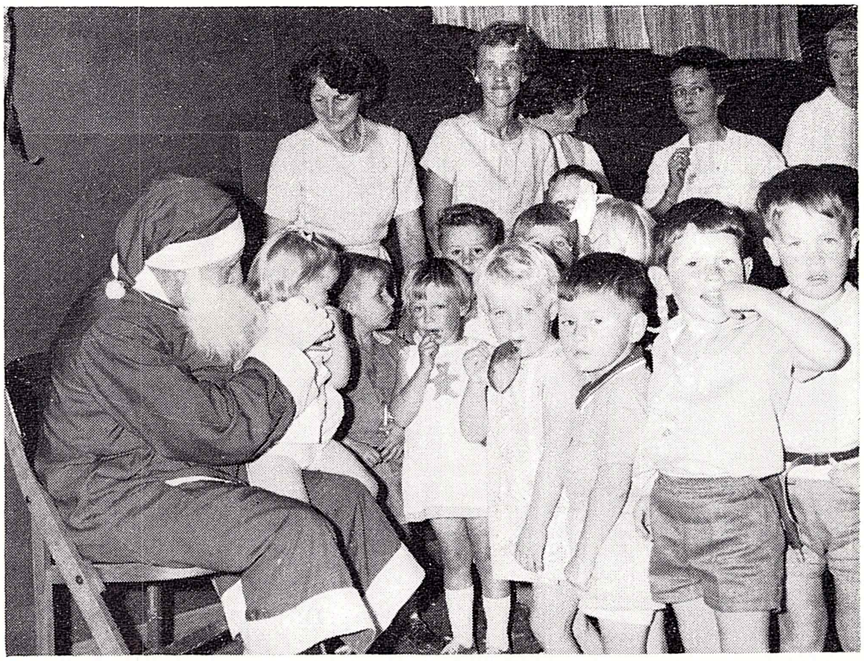
Much camping is done around Granity. Guides must camp under canvas for a week or two long weekends at least to qualify for their first class badges. Hiking, climbing, swimming, nature study, bird watching, gadget making and, of course cooking are among the activities.

Retirements and transfers :

R. Brown retired from the Stockton Mine after 47 years service. He started on February 2, 1920, and retired on February 3, 1967.

E. Holm, manager at Stockton, has transferred to the Liverpool mine.

R. Kickly, administration officer at Ngakawau, has transferred to the Marine Department, Westport, as secretary-manager.



Father Christmas at Ngakawau Play Centre.

Father Christmas at Granity Play Centre.

R. Duggan, from Mines Department, Greymouth, replaces E. Holm as manager at Stockton.

RUGBY JUBILEE

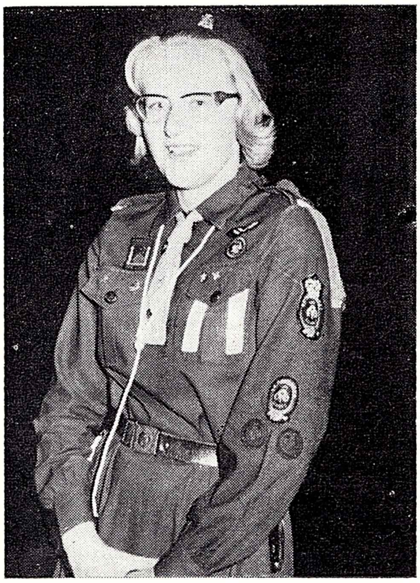
The Ngakawau Rugby Football club's golden jubilee committee will have a busy time from now until the four days of the celebrations in June.

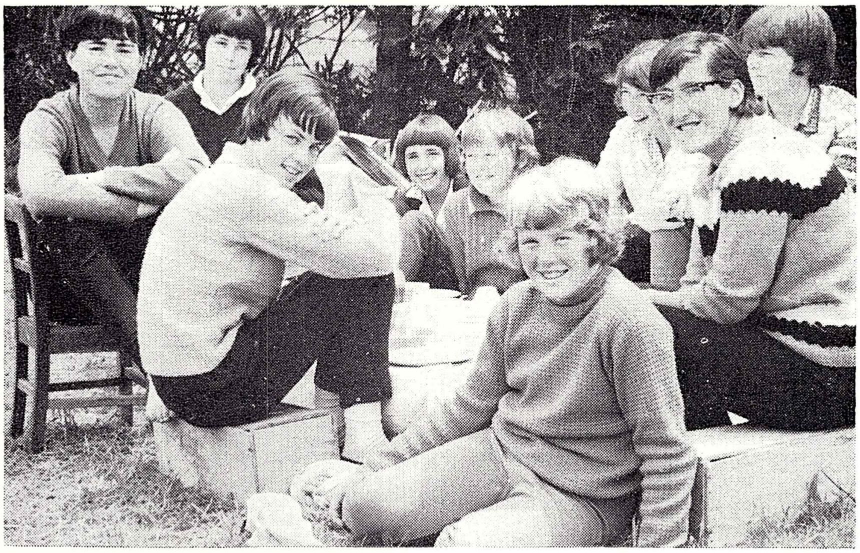
The committee intends to make the jubilee programme a memorable one, and a wide variety of events will cater for the old timers as well as the youngsters. The secretary (Mr Les Maloney, of Granity) is keen to get any photographs of old teams for display or use in the booklet.

He will be appreciative of any advice on the whereabouts of former members. Such co-operation will make the committee's work simpler in compiling the history of the country club.

The secretary's book contains the following names sent with no addresses, and any help in tracing them would be welcomed :

J. Berdinner, R. Black, R. and S. Bennet, G. Barnes, J. Beadsmore, R. Cain, T. Cummings (Palmerston North), W. Cunniffe, P. Clarke, P. Casey, L. Doherty, T. Doherty (Hawera), Jack Even (New Plymouth), R. Gilsenan, R. Gordon, T. Graham (Wellington), N. Friend (Palmerston North), Archie Gardiner, Jack Henderson, S. Harvey, R. C. and Stan Johnston, D. Jenkins, A. Luff, L. Layfield, D. and J. McFarlane, D. McAulay, E. McBride, J. McGhie (Christchurch), A. Nicholas (Motueka), J. Nicholson (Nelson), W. Neilsen, H. Power, A. and B. Pearson (possibly Christchurch), C. Rogers, A., R. and W. Straker, P. Stuart (Blenheim), F. Scott (Christchurch), A. Stollery, C. and A. Turnbull, R. Thom, J. Young and J. Yates. (Addresses can be sent to J. S. Connelly, Westport.)


Granity guide Cherrie Hansen who has been awarded her Queen's Guide badge.


Girl Guides' camp at Birchfield: ready to eat lunch.

Advice would be welcomed of any other old members and a quick enrolment by Buller men, once the notices are sent out, would be appreciated.

Neville Hay has returned to Greymouth from Ohai to become Mine Surveyor at Dunollie.

Rex Duggan left the district in December 1966 to become Mine Manager at Stockton.

Recently married were Tony Corbin of this office and Marion Grant of Greymouth.

Peter Mumm's son, Rex, gained a place in the West Coast softball team for the second year in succession.

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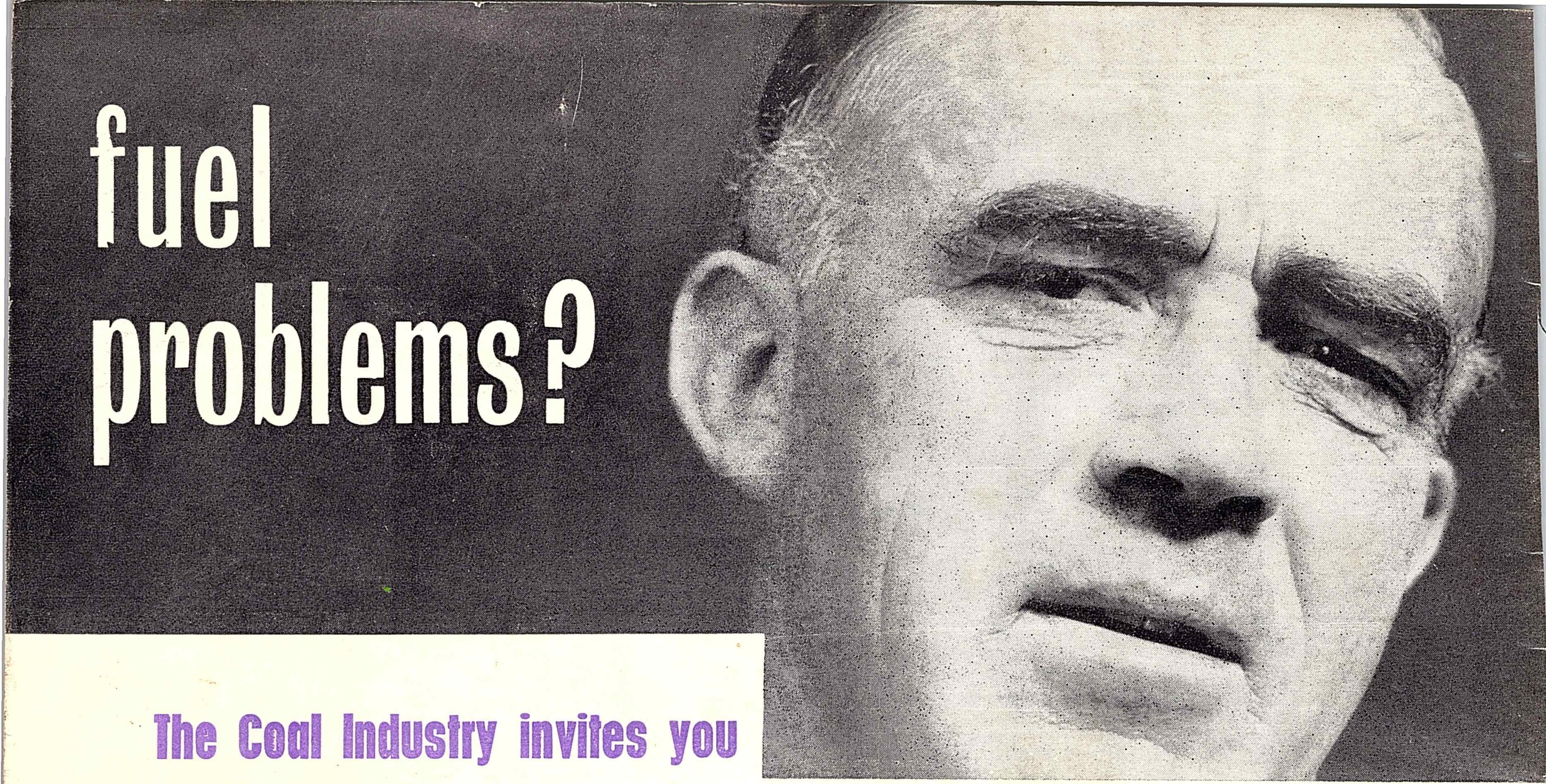

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